

Index

- 1. US Department of the Interior comment letter on the DEIS/Draft Section 4(f) Evaluation, 2012
- 2. Data request letter from Southwest LRT Project Office to Minneapolis Park and Recreation Board (MPRB) Staff (January 2015) and MPRB response and attachments (February 2015)¹
- 3. Material from Minneapolis Park and Recreation Board Regular Meetings in February and March 2015
- 4. Materials from Southwest LRT Official With Jurisdiction Meetings, February and March 2015 (agenda, notes, handouts)
- 5. Kenilworth Channel Tunnel Crossing Study, draft Memorandum of Study Findings Prepared for Minneapolis Park and Recreation Board, Minneapolis, Minnesota, March 5, 2015; Prepared by Brierley Associates
- 6. Minneapolis Park and Recreation Board Superintendent letter to Mark Fuhrmann, Metro Transit Program Director New Starts, March 2015
- 7. Kenilworth Channel/Lagoon Park Property and Kenilworth Lagoon Historic Property Section 4(f) Classification Technical Memorandum, 2015

¹ In response to the SWLRT Project's request for information, the MPRB included: use reports for Bryn Mawr Park, Cedar Lake Park, Lake of the Isles, Park Siding Park; boat rental and beach attendance reports for Lake Calhoun; and Minneapolis Bicyclist and Pedestrian Count reports. Due to the length of this content and the detail included, these appendices are not included in this appendix.





"Darby, Valincia" <valincia_darby@ios.doi.gov>

12/07/2012 10:24 AM

To <swcorridor@co.hennepin.mn.us>

cc Lindy Nelson lindy_nelson@ios.doi.gov

bcc

Subject FTA Southwest Transitway Construction and Operation Light

Rail- DEIS comments

Ms. Simon

DOI correspondence on the subject DEIS is attached. If there are questions please contact this office at (215) 597-5378.

Regards,

Valincia Darby

--

Valincia Darby

Regional Environmental Protection Assistant

Department of the Interior, OEPC

200 Chestnut Street, Rm. 244

Philadelphia, PA 19106

Phone: (215) 597-5378 Fax: (215) 597-9845

Valincia_Darby@ios.doi.gov



United States Department of the Interior

OFFICE OF THE SECRETARY

Office of Environmental Policy and Compliance Custom House, Room 244 200 Chestnut Street Philadelphia, Pennsylvania 19106-2904



December 7, 2012

9043.1 ER 12/751

Ms. Marisol Simon Regional Administrator, Region V Federal Transit Administration 200 West Adams Street, Suite 320 Chicago, Illinois 60606

Dear Ms. Simon:

The Department of the Interior (Department) has reviewed the Draft Environmental Impact Statement and Section 4(f) Evaluation for the Southwest Transitway, Hennepin County, Minnesota. The Department offers the following comments and recommendations for your consideration.

Section 4(f) Evaluation Comments

The Federal Transit Administration (FTA), along with the Hennepin County Regional Railroad Authority (HCRRA) and the Metropolitan Council Regional Transit Board (RTB), have proposed the construction and operation of a 15-mile light rail transit (LRT) line in the Minneapolis/St. Paul region. The draft Section 4(f) Evaluation identified several properties in the project study area eligible to be considered under Section 4(f) of the Department of Transportation Act of 1966 (48 U.S.C. 1653(f)). The proposed Southwest Transitway connects downtown Minneapolis to the cities of St. Louis Park, Hopkins, Edina, Minnetonka, and Eden Prairie. The intent is to improve access and mobility to the jobs and activity centers in the Minneapolis Central Business District, as well as to the expanding suburban employment centers. The Southwest Transitway was identified by the RTB in the late 1990s as warranting a high-level of transit investment to respond to increasing travel demand in a highly congested area of the region.

The analysis of impacts to eligible 4(f) properties is not entirely straightforward, and it seems much of the decision-making has been postponed for further analysis and consultation. What is understood from the evaluation is that alternatives are anticipated to result in the use of relatively small amounts of parkland; the impacts are estimated to range between 0.002 to 1.12 acres of permanent use depending on the alternative selected. For historic properties, there is the potential for Section 4(f) uses between one and five historic properties/districts, depending on the alternative selected. These uses would consist of affecting historic channels, replacing historic bridges, and placing LRT facilities within eligible or listed sites and a historic district. Consultation on design features may result in a *de minimis* finding under Section 4(f). However,

the historic Regan Brothers Bakery (historic structure) would likely be demolished if a certain facility location is selected and the facility is constructed.

The Section 4(f) Evaluation appears rather preliminary. Therefore, the Department cannot concur with the FTA that there are no feasible or prudent avoidance alternatives to the any of the alternatives presented which result in impacts to Section 4(f) properties. A preferred alternative has not been selected and it would appear that each alternative has some level of impact. It is unclear whether any of the impacts proposed in the evaluation would even be subject to a *de minimis* finding. All discussion of impact mitigation for all Section 4(f) properties are being postponed until more design information is available and consultation with the Minnesota State Historic Preservation Officer (SHPO) and other consulting parties has proceeded. Therefore, the Department cannot concur that all possible planning needed to minimize harm to Section 4(f) resources has been employed. The Department will withhold its final concurrence that there are no feasible or prudent avoidance alternatives and that all possible planning needed to minimize harm to the 4(f) resources has been employed until a preferred alternative is selected and mitigation measures have been determined.

The Department has a continuing interest in working with the FTA to ensure impacts to resources of concern to the Department are adequately addressed. For continued consultation and coordination with the issues concerning historic resources identified as Section 4(f) resources, please contact Regional Environmental Coordinator Nick Chevance, Midwest Regional Office, National Park Service, 601 Riverfront Drive, Omaha, Nebraska 68102, telephone 402-661-1844.

We appreciate the opportunity to provide these comments.

Sincerely,

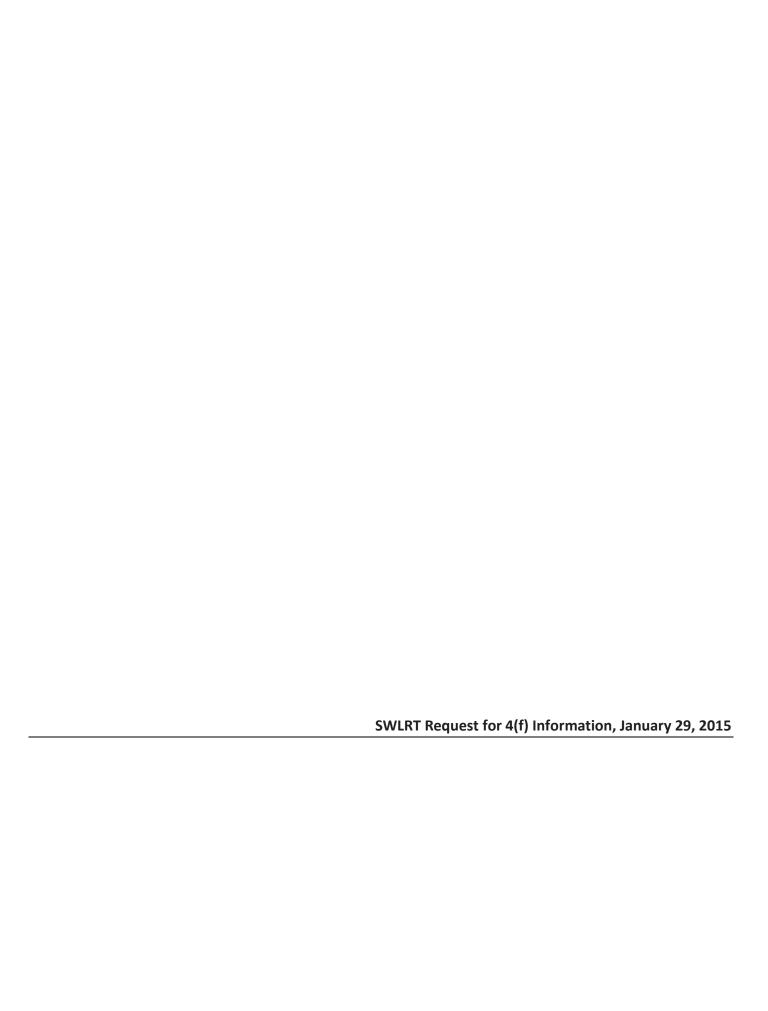
Lindy Nelson

Regional Environmental Officer,

cc:

MN-SHPO (Barbara.howard@mnhs.org)
Ms. Katie Walker, AICP
Senior Administrative Manager
Hennepin County
Housing, Community Works & Transit
701 Fourth Avenue South, Suite 400
Minneapolis, Minnesota 55415
(swcorridor@co.hennepin.mn.us)

2.	Data request letter from SWLRT to MPRB (January 2015) and MPRB response and attachments (February 2015)





January 29, 2015

Jennifer Ringold Minneapolis Park & Recreation Board 2117 West River Road Minneapolis, MN 55411

Re: Section 4(f) Evaluation for the Southwest LRT (METRO Green Line) Project

Dear Ms. Ringold

The purpose of this letter is to request assistance from the Minneapolis Park and Recreation Board (MPRB) as the Southwest Light Rail Transit (SWLRT) Project continues to conduct its review of potential impacts and mitigation to parks and recreation areas located within the Project's park and recreation study area. The project's park and recreation study area, as defined in the Draft Environmental Impact Statement (DEIS), is 350 feet on either side of the proposed light rail alignment (see purple dashed line in the adjacent figure). In particular, the Metropolitan Council's SWLRT Project Office (SPO) and Federal Transit Administration (FTA) are working to update the project's Federal Section 4(f) analysis and documentation. Section 4(f) is a requirement that Federal transportation projects for publically-owned, publically-accessible and locally-significant parks and recreation areas, as well as any historic property that is listed or eligible to be listed on the National Register of Historic Places. For historic resources, including historic park and recreation areas, we are working with Minnesota Department of Transportation Cultural Resources Unit (MnDOT CRU), the Minnesota State Historic Preservation Office (MnSHPO) staff and SWLRT Section 106 consulting parties to complete the project's Section 106 historic preservation review process. Over the next few months, SPO and FTA will be coordinating with the MPRB concerning park and recreation areas

that they own and manage to develop the update to the Section 4f analysis. It is FTA's intent to publish an update to the Section 4(f) analysis, with coordination with the MPRB, in the supplemental DEIS.

As part of the Section 4(f) effort, we are requesting information from MPRB to help develop the analysis and documentation of proposed impacts on publically-owned parks and recreation properties within the project's park and recreation area study area. SPO and FTA have identified the following publically-owned, publically-accessible parks and recreation areas within the project's park and recreation study area that are under the jurisdiction of the MPRB:

Alcott Triangle



www.swlrt.or

6465 Wayzata Boulevard, Suite 500 • St. Louis Park, MN 55



- Park Siding Park
- Kenilworth Lagoon Recreation Easement
- Lake of the Isles/Kenilworth Lagoon
- Cedar Lake Park
- Lake of the Isles Park
- Bryn Mawr Meadows

For these park and recreation areas, we respectfully request the following:

- 1. Confirmation that MPRB owns and manages these properties.
- 2. Identification of any other jurisdiction that has ownership or management responsibility for these properties (e.g., through a shared use agreement or a management agreement).
- 3. Confirmation that these properties are of local recreational significance.
- 4. Identification of the applicable adopted master plan or other plans for each property.
- 5. Identification any future adopted planned physical improvements for each property.
- 6. If available, provide maps of prominent facilities and brief descriptions of the key recreational activities that occur within each property (or source documents where this information can be obtained).
- 7. If available, data on the frequency and type of use for each property.
- 8. Identification of any other properties that the MPRB owns within the park and recreation study area that are primarily used for park and recreation purposes, that are publically-accessible and that are of local significance, including permanent recreation easements.

In addition to this information related to specific parks and recreation areas, SPO and FTA staff would like the following information in order to move the Section 4f analysis forward:

- To satisfy the requirements of Section 4(f), in some instances, written concurrence is required by FTA for the Section 4(f) evaluation and determination. Please describe MPRB processes for obtaining written concurrences for park business.
 - Name/title of MPB staff who is responsible for written concurrences under the "official with jurisdiction" designation for the Section 4f process
 - ➤ Do these types of concurrences require legal review? Or Board approval?
 - What is the schedule for signature of a concurrence letter?
- Management agreement, if one exists, between the MPRB and the City of Minneapolis for the recreational easement property.
 - ➤ Is MPRB the sole agency with jurisdiction over the parks, or does MPB share this responsibility with the City of Minneapolis?
- Pertaining to the permanent recreational easement across the Kenilworth Channel:
 - ➤ Has the recreational easement been amended since it was initially acquired (e.g., to allow for the demolition of the prior freight railroad bridge and construction of the existing wood pile bridges)?
 - ➤ Does MPRB believe that the existing recreational easement would need to be permanently amended for the project to construct a light rail bridge across the



channel and to remove and replace the existing freight rail and trail bridges across the channel? If so, could you please provide a summary of your rationale?

- Confirmation that the Comprehensive Plan MPRB 2007-2020, approved October 17, 2007, is the latest master plan document and that we do not need to review any additional documents to get the full breadth of management goals for recreational properties.
- Is there an approved management plan for MPRB parks and recreational areas that provides more specific information on the parks within the study area?

The information requested within this letter will be considered as FTA updates the determinations of which properties are protected under Section 4(f) and as it updates its determination of the official(s) with jurisdiction for each Section 4(f) property. Throughout the continuation of the project's Section 4(f) process, FTA and the SPO will continue coordination with the MPRB concerning Section 4(f) properties for which it is the official with jurisdiction. Based on Section 4(f) requirements and depending on forthcoming analyses and considerations, this coordination could include consultation on such things as: all possible planning to minimize harm (i.e., incorporation of reasonable mitigation measures) and least overall harm analysis for properties with a non-de minimis Section 4(f) use; Section 4(f) de minimis impact determinations; and temporary occupancy exemptions. This type of additional coordination between FTA, the SPO and the MPRB will be conducted through additional future meetings, correspondence and documentation.

Please let me know if you need any clarification on this request. SPO and FTA are requesting receipt of this information by Friday, February 6, 2015. We look forward to working with you on updating the Section 4(f) analysis for the SWLRT project.

Thank you, Nani

Nani M. Jacobson

Assistant Director, Environmental & Agreements

MetroTransit- Transit Systems Development Southwest Light Rail Transit Project Office 6465 Wayzata Boulevard, Suite 500 St. Louis Park, MN 55426

Direct: 612.373.3808 | Cellular: 808.497.0405 | Fax: 612.373.3899

nani.jacobson@metrotransit.org





Administrative Offices 2117 West River Road Minneapolis, MN 55411-2227

Operations Center 3800 Bryant Avenue South Minneapolis, MN 55409-1000

> Phone 612-230-6400 Fax 612-230-6500

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President Liz Wielinski

Vice President Scott Vreeland

Commissioners Brad Bourn John Erwin Meg Forney

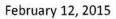
Steffanie Musich Jon C. Olson

Anita Tabb M. Annie Young

Superintendent Jayne Miller

Secretary to the Board Jennifer B. Ringold





Nani M. Jacobson Assistant Director, Environmental & Agreements MetroTransit-Transit Systems Development Southwest Light Rail Transit Project Office 6465 Wayzata Boulevard, Suite 500 St. Louis Park, MN 55426

Re: Section 4(f) Evaluation

Dear Ms. Jacobson:

In response to your letter of January 29, 2015, requesting information about several of our parks, below and enclosed is the following information:

FEB 1 5 2015

For the seven parks listed in your letter, here are answers to the first seven questions. Note that much of the information on master plans or future planned improvements, as well as frequency and use data, are contained on the enclosed flash drive.

Alcott Triangle

- 1. MPRB owns and manages this property.
- 2. There is no other jurisdiction with ownership/management responsibilities for this park.
- 3. This park is of local recreational significance.
- 4. There is no master plan or other plan for this park.
- 5. There are no future planned physical improvements for this park within our five year capital improvement plan.
- This park does not have any recreational infrastructure so there is no map of prominent facilities and key recreational activities conducted there. It is used primarily as open space.
- There is no segregated data on frequency and type of use for this
 park, as our data collection systems in current use focus on regional
 parks and parks with reserve-able, programmable spaces and
 features.

Park Siding Park

- 1. MPRB owns and manages this property.
- 2. There is no other jurisdiction with ownership/management responsibilities for this park.
- 3. This park is of local recreational significance.
- 4. Master Plan or other plan (see enclosed Park Siding folder).
- There are no additional planned physical improvements within our five year capital improvement plan.
- 6. See **enclosed plan** showing recently installed prominent facilities and key recreational activities conducted there.

Nani Jacobson re: 4(f) Evaluation February 12, 2015 Page 2 of 4

7. There is no segregated data on frequency and type of use for this park, as our data collection systems in current use focus on regional parks and parks with reserve-able, programmable spaces and public facilities. The playground and other recreational amenities in this park are open to public use on a first come, first served basis during park hours and not available for exclusive reservation.

Kenilworth Channel

- 1. MPRB owns and manages this property (we hold an easement interest only for the railroad portion of the channel. The remainder of the channel property is owned in fee title.)
- 2. The only other jurisdiction with ownership/management responsibilities is the railroad bridge over channel, currently held by BNSF Railroad.
- 3. This park is of local recreational significance, as part of both the Minneapolis Chain of Lakes Regional Park and the larger Grand Rounds Historic District (eligible).
- See attached Chain of Lakes Improvement Plan from 1997.
- 5. For planned physical improvements, see documents in Kenilworth Channel folder
- 6. We will forward a map of prominent facilities and key recreational activities for this and all following parks with a follow-up letter.
- 7. For primary use data on the Minneapolis Chain of Lakes Regional Park, see the Annual Use Estimates for the Metropolitan Regional Parks System report. These annual reports are produced by Metropolitan Council Park Division staff in coordination with all regional park implementing agencies. The purpose of preparing the annual use estimates is to determine the number of visits to each regional park and trail within the system, by park implementing agency. The visit estimate is used to inform the formulas for calculating the distribution of regional, State and Legacy funds for capital as well as for operations and maintenance purposes.

For more specific data sets on public use of this property, including permits issued for various purposes, see Frequency and Use Reports Folder (enclosed). For bicycle and pedestrian counts for this property, see the City of Minneapolis Count report published yearly from 2010-2014, in Frequency and Use Reports folder.

Lake of the Isles Park (including Kenilworth Lagoon)

- 1. MPRB owns and manages this property.
- 2. Any other jurisdiction with ownership/management responsibilities none.
- 3. Of local recreational significance yes.
- 4. See attached Chain of Lakes Improvement Plan from 1997.
- 5. There are no planned physical improvements for this park in our five year capital improvement plan.
- 6. We will forward a map of prominent facilities and key recreational activities for this and all following parks with a follow-up letter.
- 7. For primary use data on the Minneapolis Chain of Lakes Regional Park, see the Annual Use Estimates for the Metropolitan Regional Parks System report. These annual reports are produced by Metropolitan Council Park Division staff in coordination with all regional park implementing agencies. The purpose of preparing the annual use estimates is to determine the number of visits to each regional park and trail within the system, by park implementing agency. The visit estimate is used to inform the formulas for calculating the distribution of regional, State and Legacy funds for capital as well as for operations and maintenance purposes.

Nani Jacobson re: 4(f) Evaluation February 12, 2015 Page 3 of 4

For more specific data sets on public use of this property, including permits issued for various purposes, see Frequency and Use Reports folder. For bicycle and pedestrian counts for this property, see the City of Minneapolis Count report published yearly from 2010-2014, in Frequency and Use Reports folder.

Cedar Lake Park

- 1. MPRB owns and manages this property.
- 2. Any other jurisdiction with ownership/management responsibilities none.
- 3. Of local recreational significance yes.
- 4. See attached Chain of Lakes Improvement Plan from 1997.
- 5. There are no planned physical improvements for this park in our five year capital improvement plan.
- 6. We will forward a map of prominent facilities and key recreational activities for this and all following parks with a follow-up letter.
- 7. For primary use data on the Minneapolis Chain of Lakes Regional Park, see the Annual Use Estimates for the Metropolitan Regional Parks System report. These annual reports are produced by Metropolitan Council Park Division staff in coordination with all regional park implementing agencies. The purpose of preparing the annual use estimates is to determine the number of visits to each regional park and trail within the system, by park implementing agency. The visit estimate is used to inform the formulas for calculating the distribution of regional, State and Legacy funds for capital as well as for operations and maintenance purposes.

For more specific data sets on public use of this property, including permits issued for various purposes, see the Cedar Lake Park Folder (enclosed). For bicycle and pedestrian counts for this property, see the City of Minneapolis Count report published yearly from 2010-2014, in Frequency and Use Reports folder.

Bryn Mawr Meadows Park

- 1. MPRB owns and manages this property.
- 2. Any other jurisdiction with ownership/management responsibilities none.
- 3. Of local recreational significance yes.
- 4. There is at this time no master plan for this park.
- 5. In 2019-2020, this park is slated to have \$3.5 million in athletic field, site and playground improvements.
- 6. We will forward a map of prominent facilities and key recreational activities for this and all following parks with a follow-up letter.
- 7. For data on frequency and type of use, see attached Bryn Mawr Use Report.

To answer question number eight in your letter, there are no other properties in the Southwest Light Rail Transit area besides the above parks that meet 4(f) guidelines for study.

MPRB's process for conducting business will include staff review of all proposals, followed by recommendations to the Superintendent, review by legal counsel, and then will require full board approval of any action on behalf of the organization. Our "official with jurisdiction" designee for the Section 4(f) process is our President of the Board, Liz Wielinski. Any documents requiring board approval

Nani Jacobson re: 4(f) Evaluation

February 12, 2015

Page 4 of 4

will need to be finalized between MPRB and other parties involved, including legal counsel review and recommendations as necessary. The final document is included in a recommended board resolution on an approximate four-week approval schedule. Board meetings are held the first and third Wednesday of most months.

MPRB and the City of Minneapolis are separate entities, with separate legal charters and governing documents. The City of Minneapolis has no involvement in the ownership, management or any decisions regarding MPRB's park property, whether held in fee or by other rights.

MPRB's Comprehensive Plan 2007-2020, approved October 17, 2007, is the most recent comprehensive plan document for our park system.

We are still compiling additional information in response to the questions in your letter and will forward same as soon as possible.

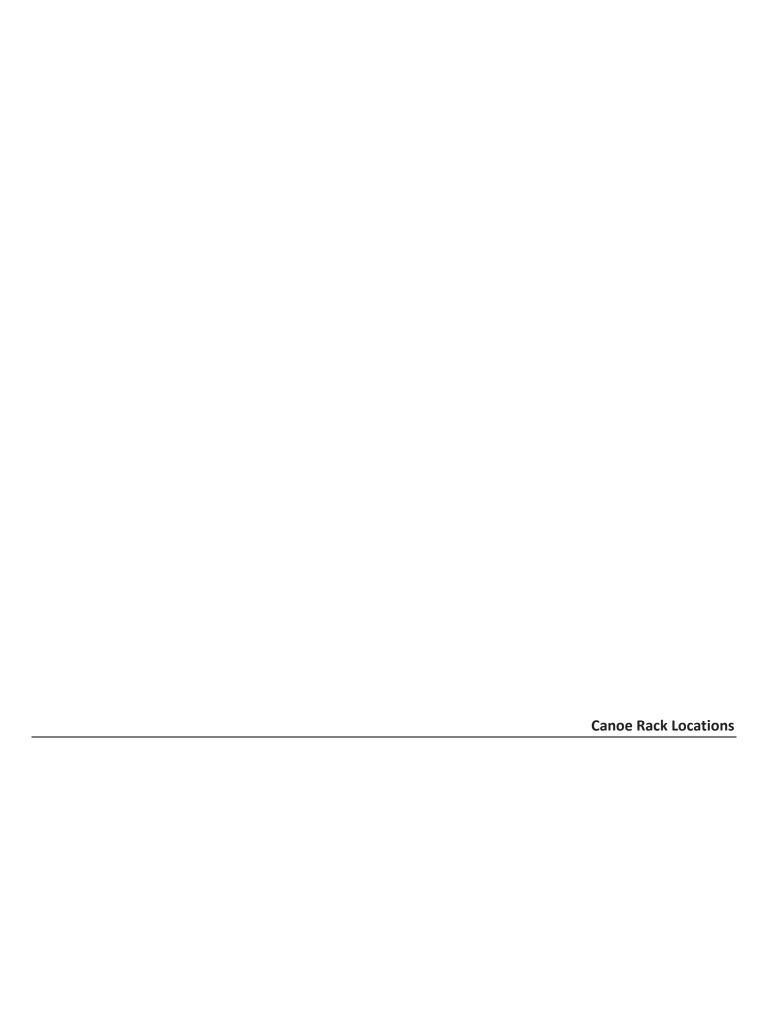
Sincerely,

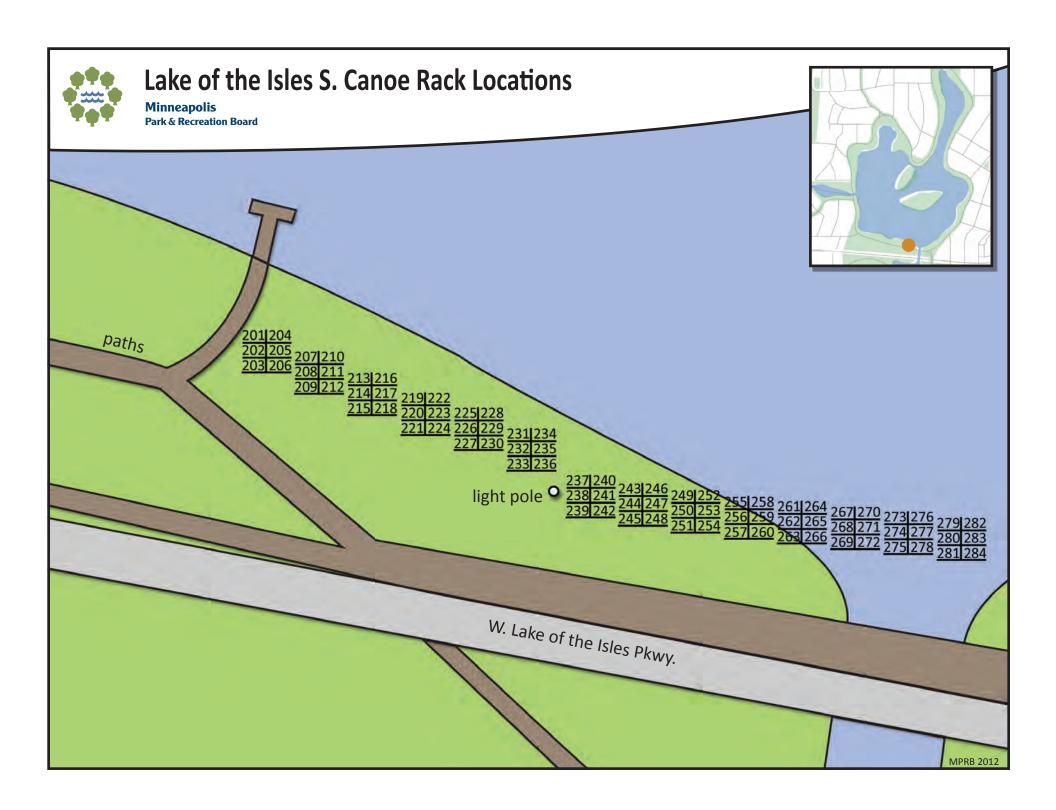
Michael Schroeder

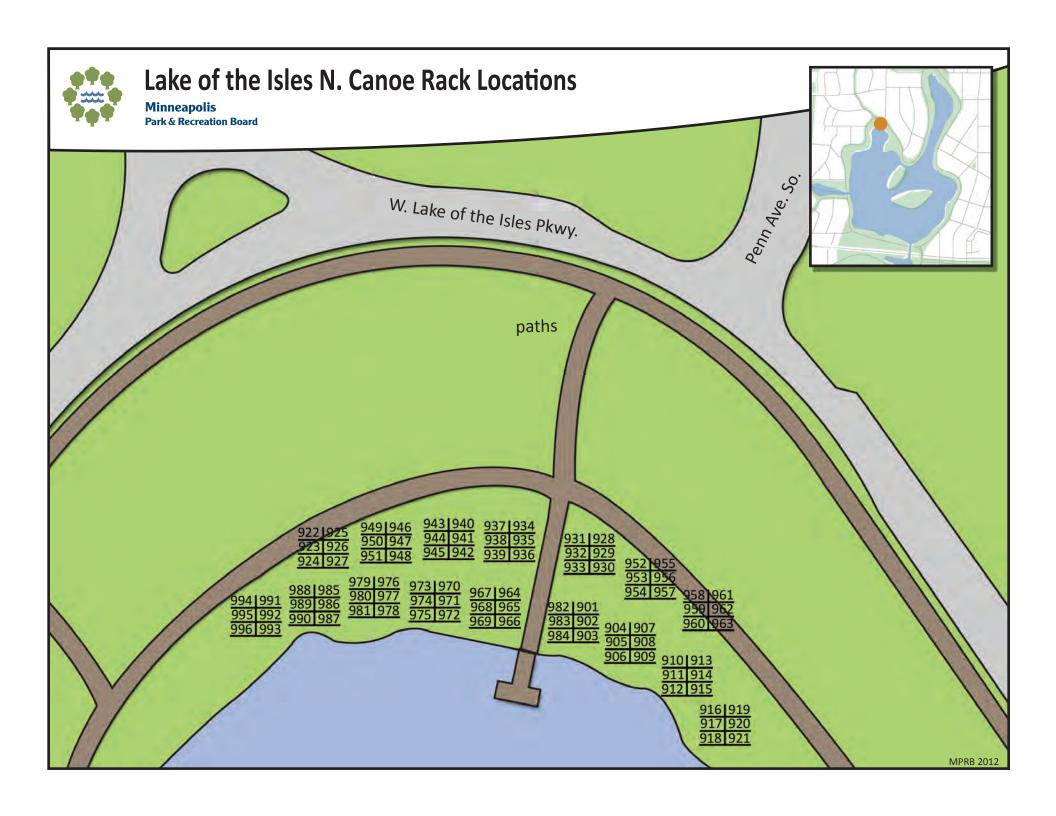
Assistant Superintendent for Planning

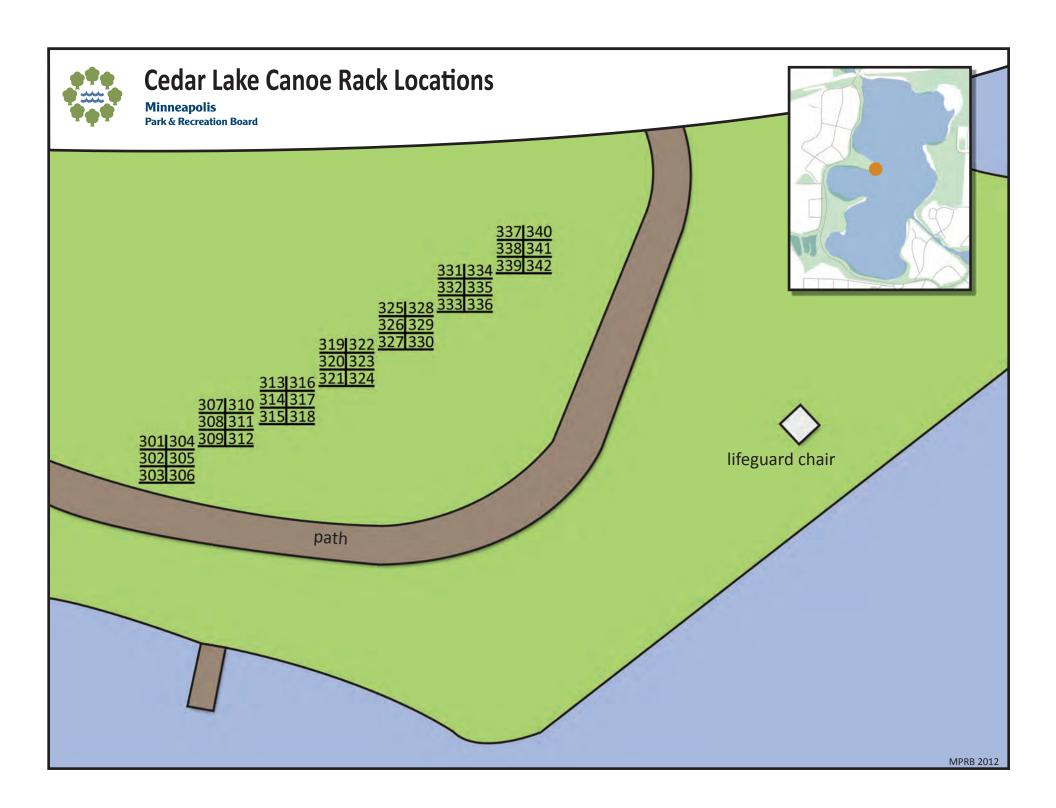
cc: Jennifer B. Ringold, MPRB Deputy Superintendent

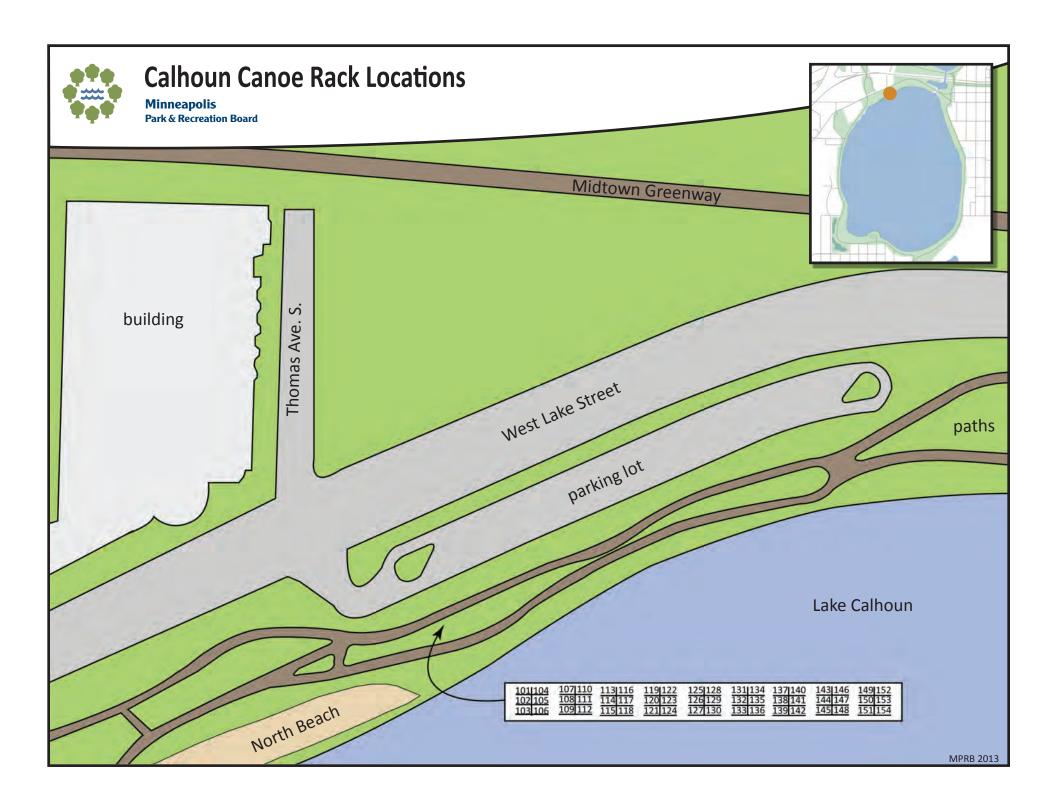
Renay Leone, MRPB Real Estate Planner

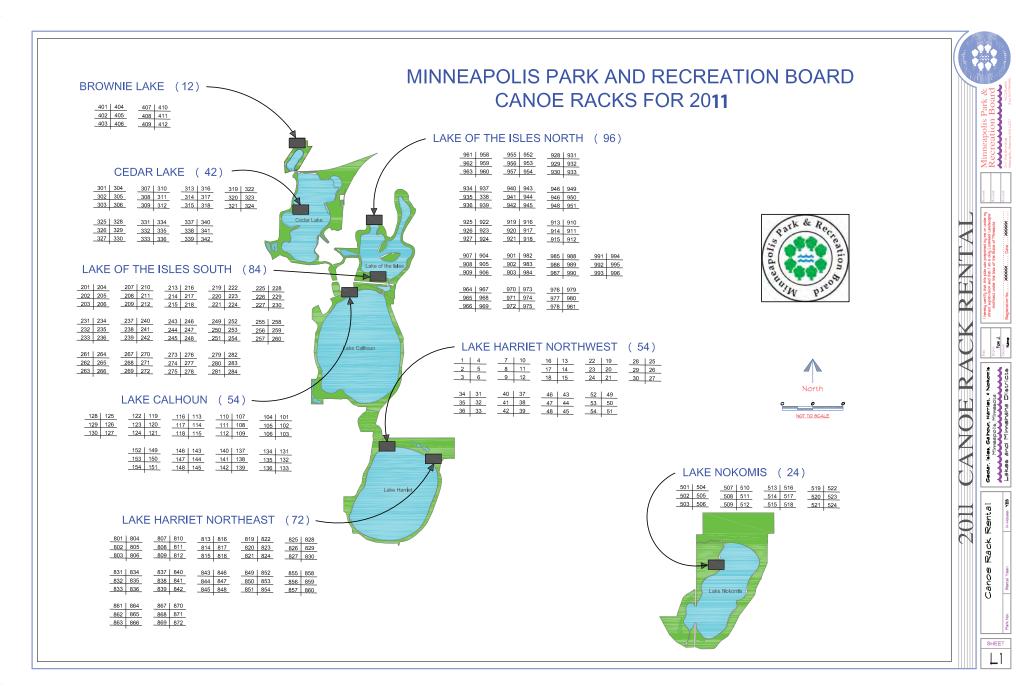














CEDAR / KENILWORTH CHANNEL & WALL RECONSTRUCTION

			SLOPE BANK		SHEET WALL	
ITEM	UNIT COST	UNITS	UNITS	TOTAL	UNITS	TOTAL
ENGINEERING / DESIGN	\$100,000	Plan/Spec	1	\$100,000	1	\$100,000
MNDNR PERMIT	\$1,000	Permit	1	\$1,000	1	\$1,000
USACOE PERMIT	\$500	Permit	. 1	\$500	1	\$500
MCWD PERMIT	\$10,000	Permit	1	\$10,000	1	\$10,000
SHPO STUDY/REVIEW	\$15,000	Permit	1	\$15,000	1	\$15,000
DEWATERING	\$120,000		1	\$120,000	1	\$120,000
REMOVALS	\$300	linear ft	1,200	\$360,000	1,200	\$360,000
FILL / GRADE	\$10	cubic yd	4,000	\$40,000	400	\$4,000
TREE REMOVAL	\$50	tree	50	\$2,500		
TREE REPLACEMENT	\$200	tree	150	\$30,000	·	
DREDGING	\$15	cubic yd	400	\$6,000	400	\$6,000
SHEET WALL	\$500	linear ft			1,200	\$600,000
CONCRETE FORM LINER	\$50	sq ft			6,000	\$300,000
CONCRETE CAP	\$100	linear ft		·	1,200	\$120,000
SHORE RESTORATION	\$70	linear ft	1,200	\$84,000		
EROSION CONTROL	\$40,000	lump	1	\$40,000	1	\$40,000

SUBTOTAL

\$809,000

\$1,676,500

25% contingency

\$202,250

\$419,125

GRAND TOTAL:

\$1,011,250

\$2,095,625

TO: JUDD RIETKERK, ASSISTANT SUPERINTENDENT FOR PLANNING

FROM: TIM P. BROWN, P.E., PARKS ENGINEER

DATE: FEBRUARY 19, 2002

RE: CONSTRUCTION ESTIMATE FOR REHABILITATION OF THE CEDAR

LAKE / KENILWORTH CHANNEL

Early in this century the MPRB constructed a channel between Cedar Lake and Lake of the Isles. The 1915 wooden walls that hold the channel margins have begun to fail causing erosion and degradation of the channel itself. Some adjacent property owners have requested the MPRB look into rebuilding these walls. I have prepared the attached construction estimate for rebuilding the channel between the Burnham Blvd. Bridge and Cedar Lake under two options.

The first option would reconstruct the channel to look like a natural flowage. Sloped banks rather than walls, would be constructed as close to natural as the sometimes narrow corridor will allow. In some places the minimum slope would be approximately 2:1 with slopes down to 3:1 possible toward the western end of the channel. The most expensive item for this project is expected to be the removal of the old wall. The difficult access and the sensitive nature of the shoreline makes this a difficult item to quantify. This option might be popular with environmentalists and the MCWD but probably wouldn't be as popular with the adjacent property owners. This option involves higher maintenance costs than the second option, due to needs for long term weeding/vegetation maintenance and keeping the channel open enough for emergency access.

The second option would reconstruct the channel with a rigid wall on wither side. The wall would consist of metal sheet piling faced with concrete made to look like stone. The sheet wall itself is the most expensive item for this estimate. This option is twice as costly as the first but has the advantage of needing very little maintenance when complete.

Both of the above options are probably relatively stable and cost efficient compared with other types of bank treatments. Although the wood there now probably dates from 1915, the cost and long term stability of wood in today's world makes it undesirable. Similarly, a wall of real stone probably wouldn't last as long as the sheet pile and would cost much more to construct.



ENGINEERS • ARCHITECTS • PLANNERS

1500 PIPER JAFFRAY PLAZA 444 CEDAR STREET SAINT PAUL, MINNESOTA 55101-2140 PHONE: 651/292-4400 FAX: 651/292-0083

June 3, 2002

Mr. Tim P. Brown, P.E. Minneapolis Park & Recreation Board 200 Grain Exchange 400 South Fourth Street Minneapolis, Minnesota 55415-1400

Re:

Kenilworth Channel Investigation Minneapolis Park & Recreation Board TKDA Commission No. 12550-01

Dear Mr. Brown:

Introduction The transplantation of the property of the property of the first of th

Minneapolis Park and Recreation Board has authorized TKDA to conduct a condition survey of the wood retaining walls on the Kenilworth Channel. The purpose of the survey is to provide our opinion as to the structural condition of the wall and to provide an estimate of the remaining useful life of the wall.

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The Kenilworth Channel is located between Cedar Lake and Lake of the Isles. The wood retaining walls line the north and south banks of the channel from Burnham Road to Cedar Lake. This is a length of approximately 580 feet. Based upon discussions with yourself, there are no drawings showing the existing wall construction. It is not known when the walls were built.

Field Investigation

On Wednesday May 8, 2002, a field inspection of the walls was completed. The inspection was made from the water side by a boat furnished by the Park Board. The inspection was conducted by William Deitner, P.E. Also present was Mr. Tim Brown, P.E. and the boat operator. Observations were made by floating adjacent to both the north and south walls.

From our observations it was determined that the basic wall is constructed from full 2 by 6 lumber driven into the ground. Running continuously along the top of the wall is a 4 x 4. At four foot intervals a 5/8" diameter tie rod extends back into the embankment. The rods appeared under tension. However, we were not able to determine the configuration or presence of the dead Mr. Tim Brown, P.E. Minneapolis Park & Recreation Board June 3, 2002 Page 2

man anchors on these ties. From two planks found alongside the wall, the length of the 2 x 6s are eight feet. At one end of these planks a hand chiseled tapered end was noted. On average there is approximately four feet of the wood planking above the channel bottom and four feet of plank embedded below the channel bottom. The water depth varies, but averages about two feet. This leaves approximately two feet of the wood plank exposed above the water line.

At several locations along both the north and south walls the remnants of a second wall were noted. This second wall was located landward from the current wall. Only the upper portion of this was visible. The wall was sloped toward the channel. Presumably this wall was replaced by the current wall. Only the upper 18 inches or so is visible.

The wall system in general was found to be in poor condition with many areas that have actually failed. Most of the failed areas are associated with tree growth or windfalls on the banks. The tree growth has displaced the wall towards the channel. In most cases this has resulted in splitting of the 4 x 4s running along the top of the wall and cracking of the 2 x 6 wall boards. Windfalls have caused localized areas of complete loss of the wall system above the channel bed. Another mode of failure noted was the deterioration of the top of the wall due to rotting. Deterioration of the top of the 2 x 6s and the 4 x 4s resulted in the wall displacing towards the channel. The tie rods were found to be in fair condition with some surface corrosion. No rotting of the wood 2 x 6s was found below the water line. Some areas of the wall have been repaired. The repairs have been made with preservative treated wood of nominal size (actual size 1-1/2" x 5-1/2").

Structural Calculations

A basic structural analysis was performed using information obtained from the field. In addition, specific wood and soil properties were assumed. The purpose of the analysis was to get a general feeling as to the adequacy of the wall and not to quantitatively measure its condition.

The results of the analysis indicates that the wall is in general conformance with current design standards except as noted. The length of the wall sheets and the placement of the tie backs are consistent with current design practices. The calculated bending stresses in the wall exceed current design values.

Conclusion

The wood retaining walls on the Kenilworth Channel are in poor overall condition. We believe that they have seen their useful life and that replacement should be planned. Continued damage from the adjoining trees can be expected. Damage from the rotting will continue and eventually accelerate causing additional failures along the length of the walls. Due to the nature of the wall configuration, we would expect that as the failures occur they will be localized and that a global

Mr. Tim Brown, P.E. Minneapolis Park & Recreation Board June 3, 2002 Page 3

failure of the wall system is not expected. With the property lines located 30 feet behind the wall, it is our opinion that an imminent failure resulting in damage to the private property is not likely.

It is not possible for us to place an exact time frame on the remaining serviceability of the walls. We recommend that maintenance be continued on the wall system. Maintenance should consist of replacing the damaged wall boards with treated 2 x 6's eight feet long and repairing the 4 x 4's at the top of the wall between the tie rods. Damaged areas should be repaired with like materials to minimize erosion from behind the wall.

Cost Estimate

Our work scope also included preparing a conceptual estimate of construction costs to replace the wall. Our estimate is based on a steel sheet pile wall with a concrete cap. General condition costs such as permits and engineering fees have not been included in this estimate.

<u>Item</u>	Quantity	<u>Unit Price</u>	<u>Total</u>
Mobilization	1 LS	\$25,000.00	\$25,000.00
Clearing	23,200 SF	\$0.50	\$11,600.00
Sheet Pile	11,600 SF	\$40.00	\$464,000.00
Concrete Cap	1160 LF	\$75.00	\$87,000.00
Earthwork	1000 CY	\$15.00	\$15,000.00
Landscaping	1 LS	\$70,000.00	\$70,000.00
Demobilization	1 LS.	\$15,000.00	\$10,000.00
		TOTAL	\$682,600.00

Sincerely,

William E. Deitner, P.E.

Minnesota License No. 16523

TO: JUDD RIETKERK, ASSISTANT SUPERINTENDENT FOR PLANNING

FROM: TIM P. BROWN, P.E., PARKS ENGINEER

DATE: FEBRUARY 19, 2002

RE: CONSTRUCTION ESTIMATE FOR REHABILITATION OF THE CEDAR

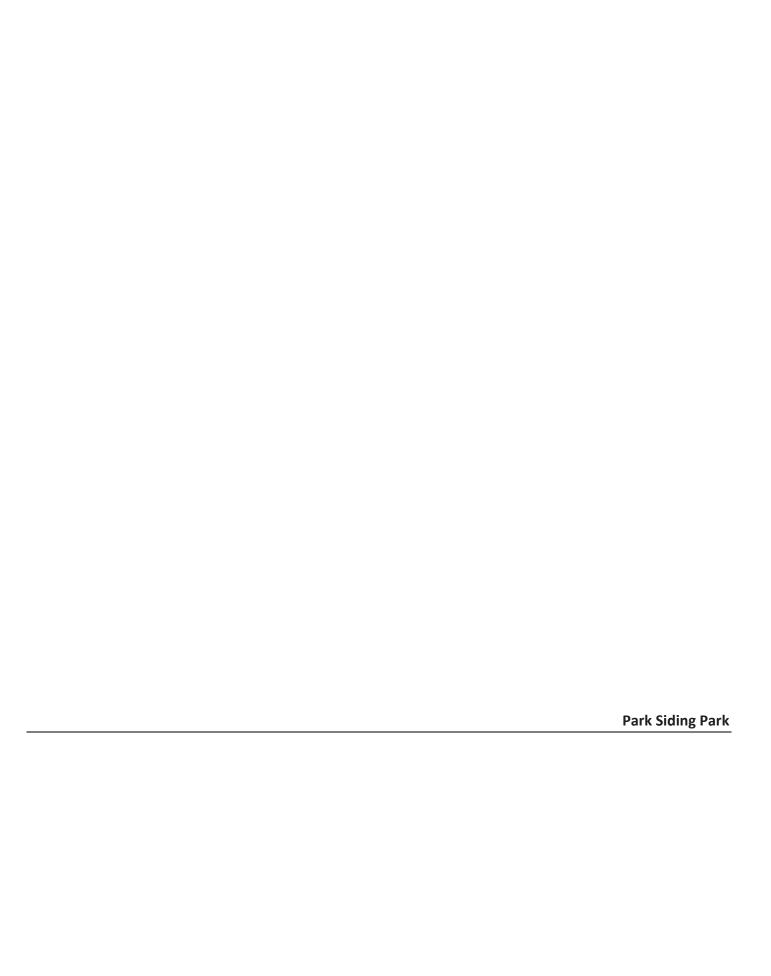
LAKE / KENILWORTH CHANNEL

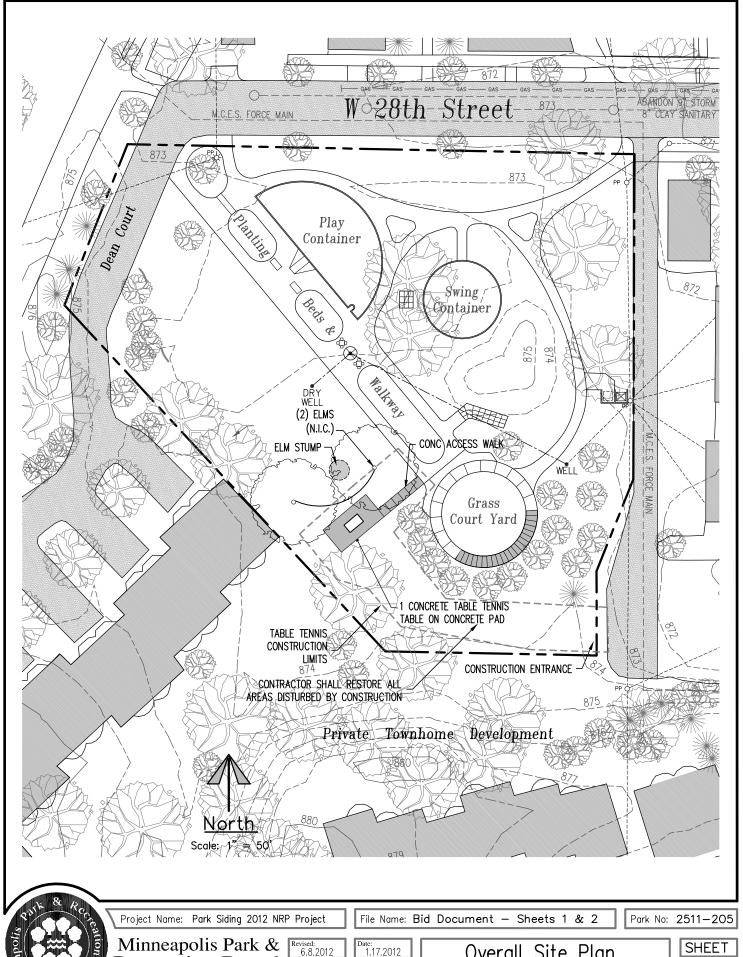
Early in this century the MPRB constructed a channel between Cedar Lake and Lake of the Isles. The 1915 wooden walls that hold the channel margins have begun to fail causing erosion and degradation of the channel itself. Some adjacent property owners have requested the MPRB look into rebuilding these walls. I have prepared the attached construction estimate for rebuilding the channel between the Burnham Blvd. Bridge and Cedar Lake under two options.

The first option would reconstruct the channel to look like a natural flowage. Sloped banks rather than walls, would be constructed as close to natural as the sometimes narrow corridor will allow. In some places the minimum slope would be approximately 2:1 with slopes down to 3:1 possible toward the western end of the channel. The most expensive item for this project is expected to be the removal of the old wall. The difficult access and the sensitive nature of the shoreline makes this a difficult item to quantify. This option might be popular with environmentalists and the MCWD but probably wouldn't be as popular with the adjacent property owners. This option involves higher maintenance costs than the second option, due to needs for long term weeding/vegetation maintenance and keeping the channel open enough for emergency access.

The second option would reconstruct the channel with a rigid wall on wither side. The wall would consist of metal sheet piling faced with concrete made to look like stone. The sheet wall itself is the most expensive item for this estimate. This option is twice as costly as the first but has the advantage of needing very little maintenance when complete.

Both of the above options are probably relatively stable and cost efficient compared with other types of bank treatments. Although the wood there now probably dates from 1915, the cost and long term stability of wood in today's world makes it undesirable. Similarly, a wall of real stone probably wouldn't last as long as the sheet pile and would cost much more to construct.





Minneapolis Park & Recreation Board

2117 West River Road
Minneapolis, Minnesota 55411-2227

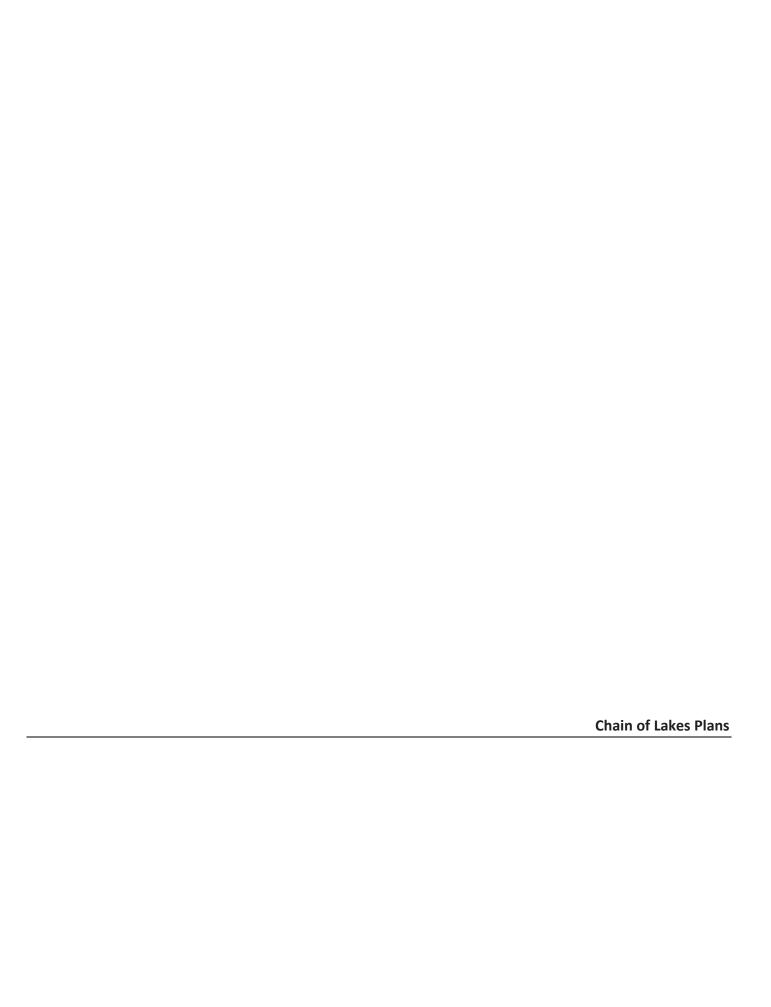
(Fax) 612-230-6300

(Fax) 612-230-6300

Revised: 6.8.2012 Revised: 7.11.2012 Revised: Date:
1.17.2012
Drawn:
Jim H
Checked:
Deb B

Overall Site Plan
PARK SIDING PARK

SHEET 1 of 7



Sources and References Cited

Minneapolis Park and Recreation Board, prepared by Rachel B Ramadhyani. 1997. *Chain of Lakes Master Planning Study Summary Report*. Available at:

https://www.minneapolisparks.org/asset/0kwy85/chain of lakes master plan summary.pdf

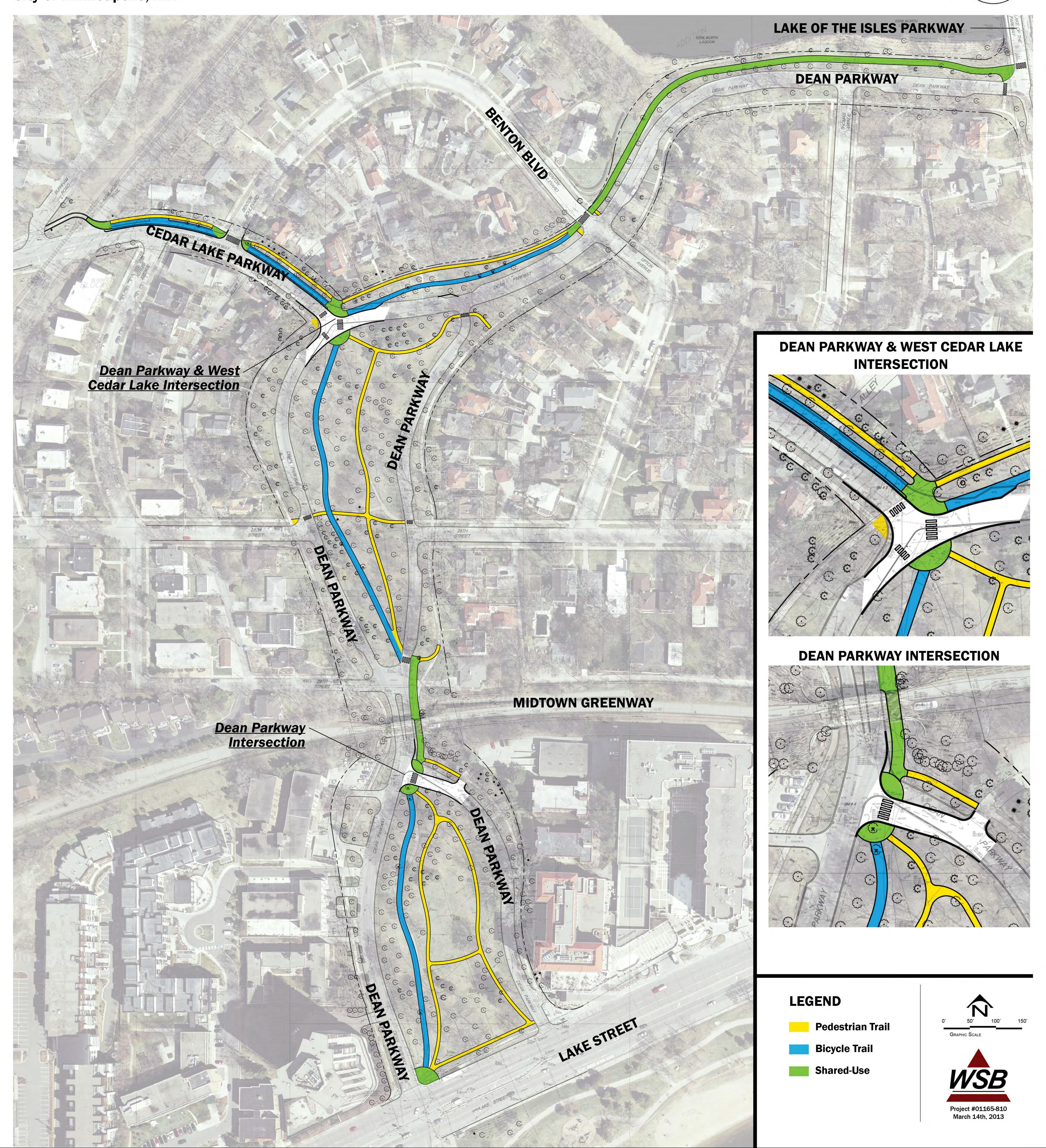
Minneapolis Park and Recreation Board. 1997. *Chain of Lakes Comprehensive Plan with the Future of Water Quality in Mind*. Available at: https://www.minneapolisparks.org/ asset/3jxds4/cal-harr-chain of lakes comprehensive plan 1997.pdf.

Dean Parkway Trail Improvement Project

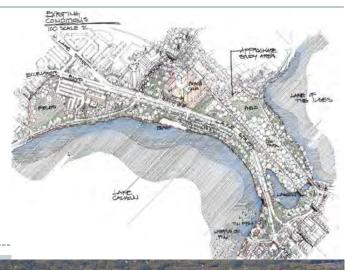
Minneapolis Park & Recreation Board

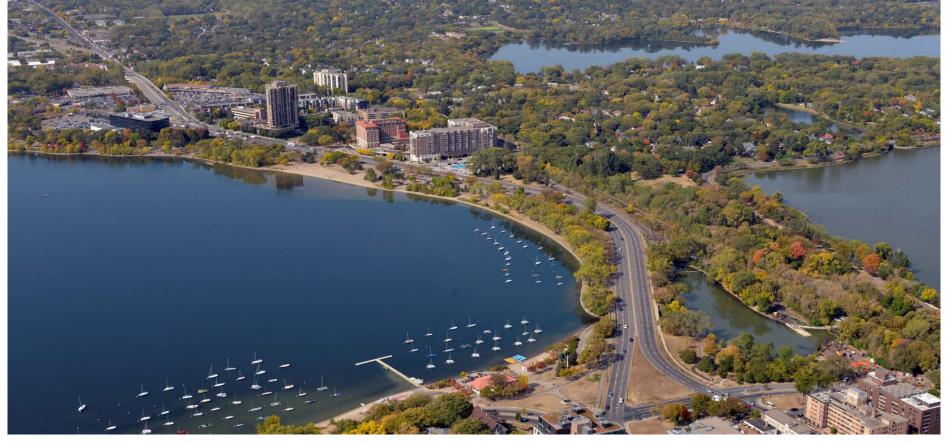
City of Minneapolis, MN

Preferred Concept

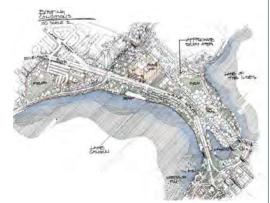


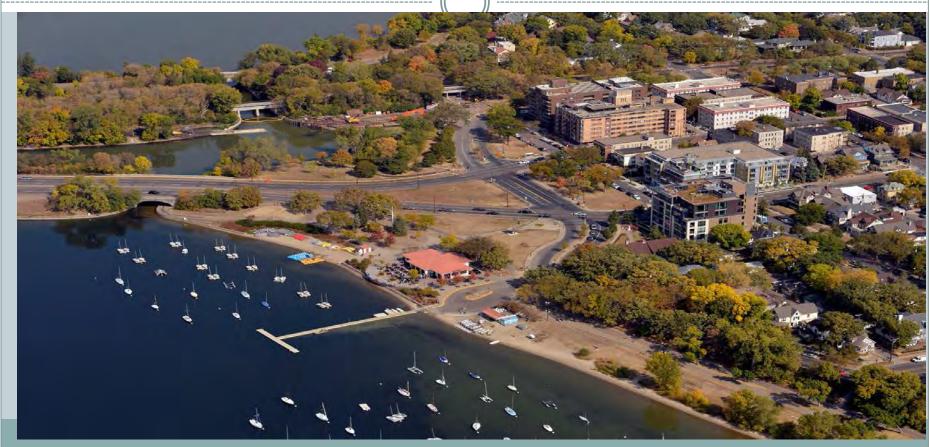
North Lake Calhoun / South Lake of the Isles





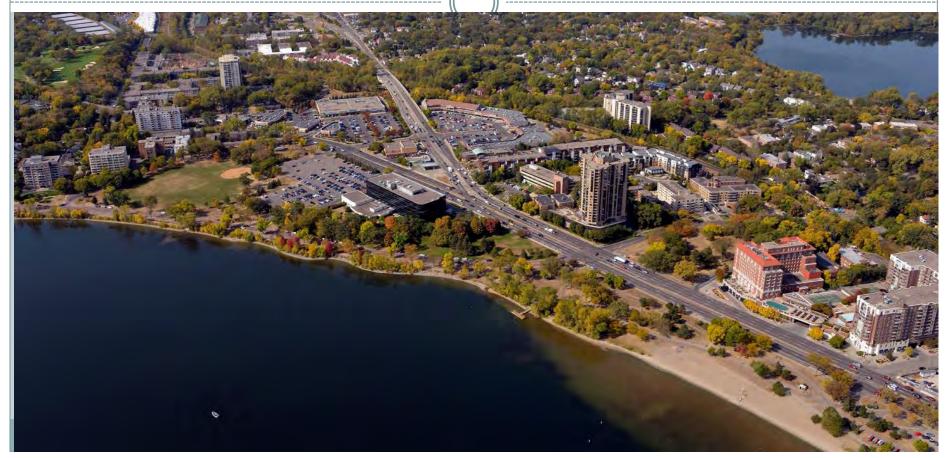
North Lake Calhoun / South Lake of the Isles





North Lake Calhoun / South Lake of the Isles





Issues & Opportunities

Increasing visitation

- Midtown Greenway
- 1.5 million annually to Lake Calhoun
- o 5 million annually to Chain of Lakes (#1 park destination in Minnesota)

Congestion at NE corner of Lake Calhoun

- Tin Fish
- Sailing School
- Sailing Club
- Wheel of Fun
- Boat launch
- o trails

Trail safety concerns

- Tight corners
- Street crossings
- Shared trails

Re-weaving the landscape

- Lake Street & Midtown Greenway barriers for a Century... how to transform
- Leveraging the Southwest LRT project
- Informing future private development
- Preparing for 2015 & 2016 regional park funding (\$3.7 million)

Approach

- Facilitate a community design charrette
 - Explore a wide range of possibilities
 - Engage the community
 - Establish a body of design analysis for use by future CAC
- Establish core principles
 - respect current uses
 - o solve problems
 - envision a positive inter-relationship between park and development
 - o re-weave the landscape
- Leverage the charrette for the next stage of the project
 - o new ideas
 - partnerships
 - o "fodder" for future CAC
 - incremental improvements

Process

- October 9 − 13, 2012 community design charrette
 - **▼** Understand project objectives, constraints & opportunities
 - **▼** Integrate the community with the design process
 - Explore a full range of early design ideas
 - Gain public critique & feedback
- Since then
 - Additional options for Tin Fish area (based on community input)
 - Coordination with SW LRT
 - Discussions with City of Minneapolis, Hennepin County & neighborhoods
 - Determination of next steps

October Design Charrette - What we heard from the community

SAFE TRAIL AND STREET CROSSINGS

ENVIRONMENTAL QUALITY

BEAUTIFICATION OF LAKE STREET



CONTINUED ENERGY AND SUCCESS OF TIN FISH AREA

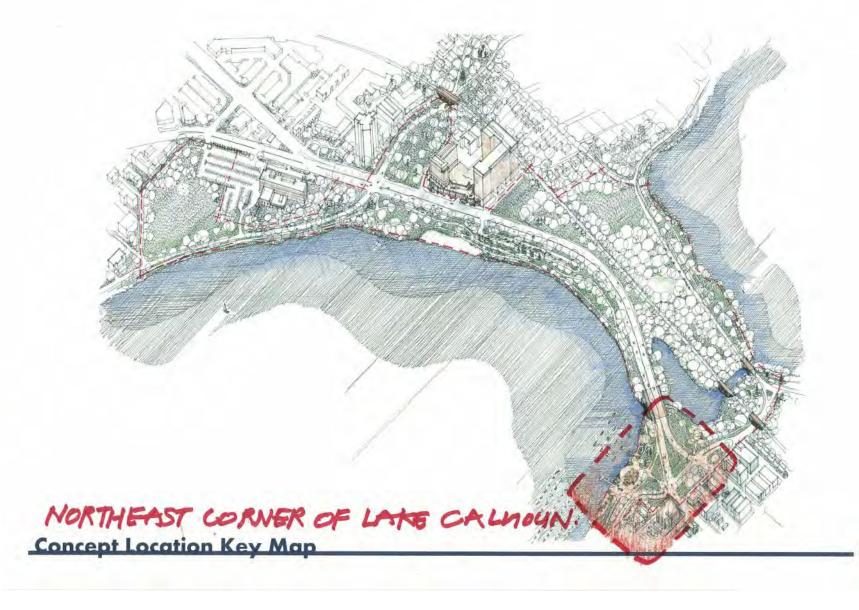
SUPPORT FOR SAILING SCHOOL AND CLUB

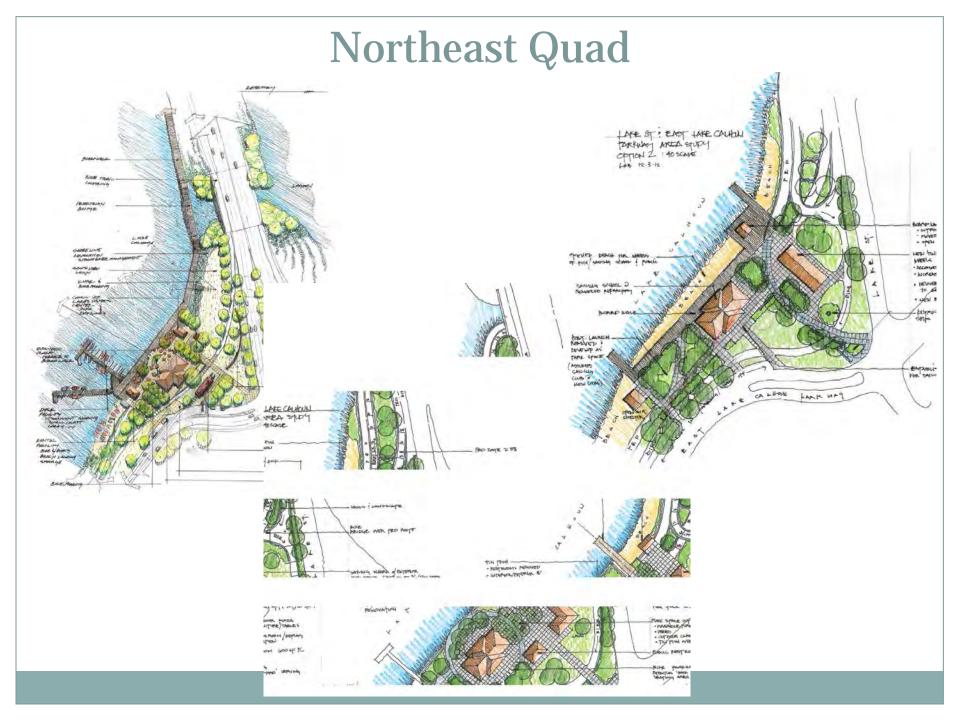
BETTER CONNECTIONS BETWEEN CALHOUN / GREENWAY / ISLES

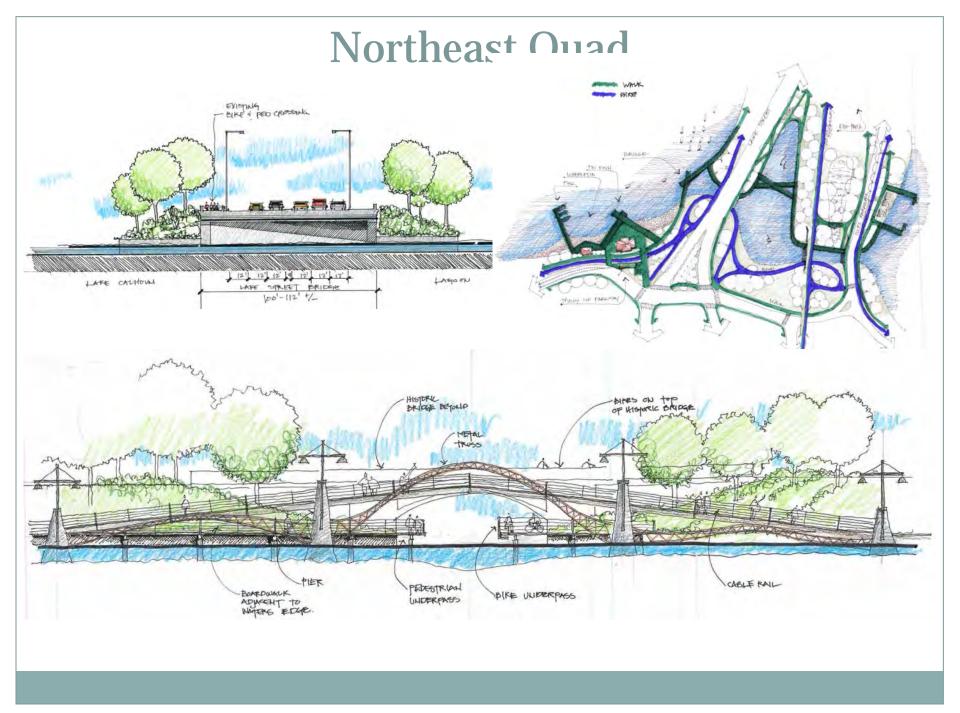
BETTER VISITOR FACILITIES (SUCH AS RESTROOMS)

CONTINUED INVOLVEMENT

Northeast Quad







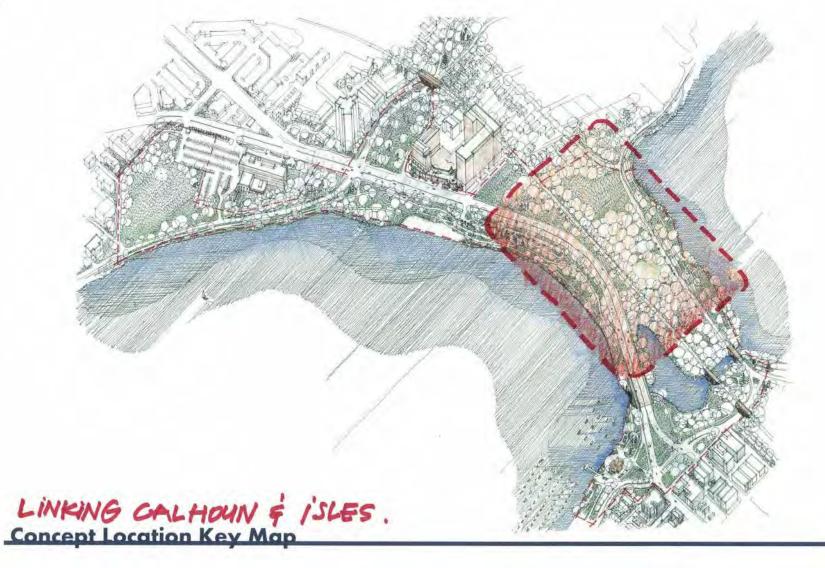
Northwest Quad



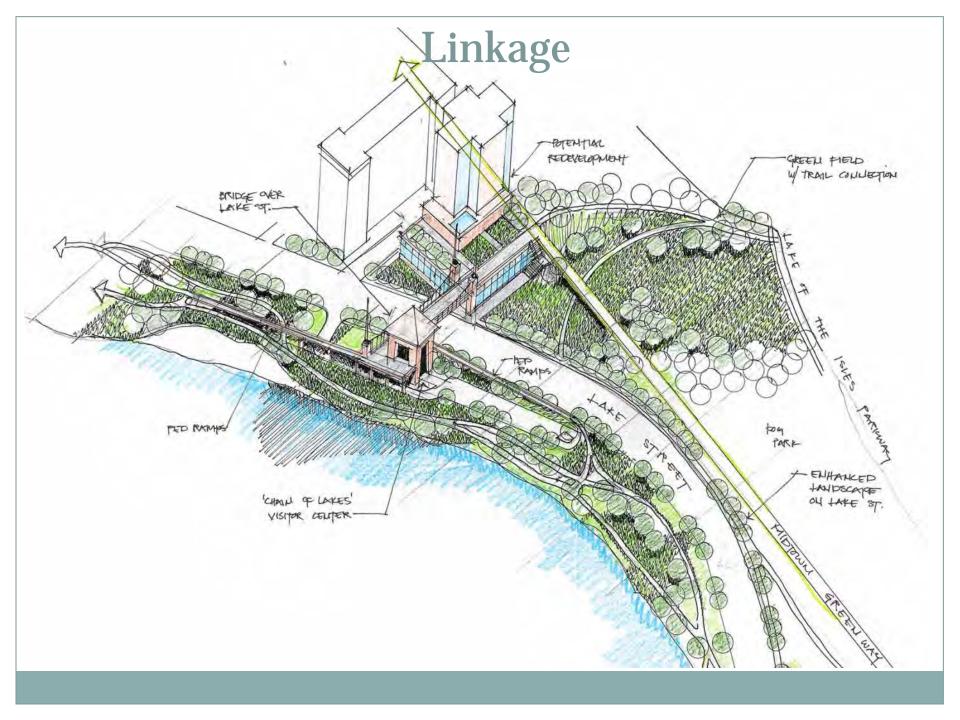
Northwest Quad



Linkage

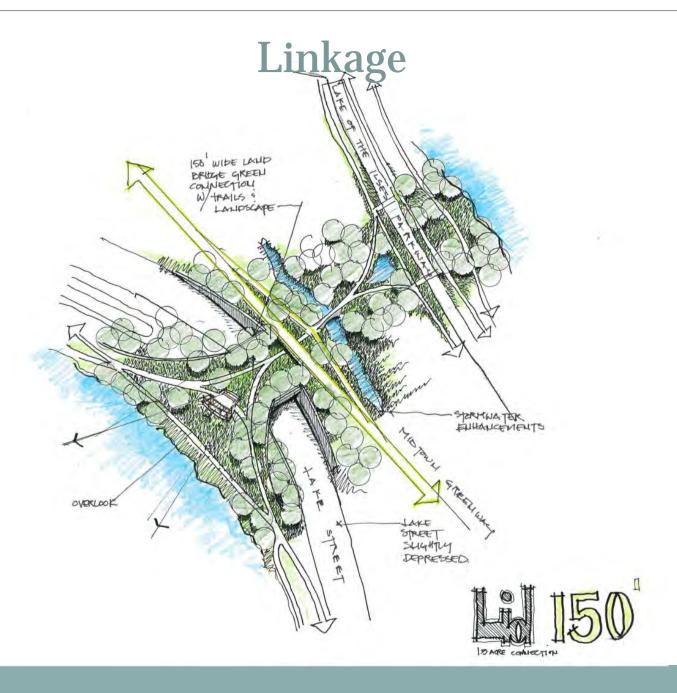






Linkage FUTURE DEVELOPMENT PANK RAZA LAKE YT.





Next Steps

- Lake Street "lid" feasibility study
 - × Hopeful 2013 effort
 - Partnerships (Hennepin County, City, neighborhoods)
 - **Secure funding (est. \$200,000 \$250,000)**
 - Engage the community
 - Inform future adjacent private development
 - Possible inclusion of district traffic study (additional \$200,000)
- 2014 launch of community advisory committee
 - Use charrette materials as basis for CAC work
 - Establish pathway for Sailing School and Sailing Club facilities
 - Inform 2015/16 regional park investments
- Lake Street "Lid" as 2014 State bonding request?
 - Feasibility study will inform design and budget
 - Highest traveled Hennepin County roadway
 - Most visited park in Minnesota
 - Hundreds of thousands of annual bike/ped crossings of Lake Street



KENILWORTH CROSSING ALTERNATIVES

Prudence assessment

February 4, 2015

Revised February 5, 2015
Slides 34 and 47

Overview

- Definitions
- Feasibility, cost and schedule for tunnel alternatives
- Prudence assessment

Critical definitions

- <u>Feasible</u> is defined as:
 - Able to be accomplished as a matter of sound engineering judgment
- Feasibility factors
 - Conformance with SWLRT Design Criteria
 - Engineering
 - Cost
 - Constructability
 - Resource impacts
 - User impacts
 - Overall schedule, staging and sequencing
 - Light rail operations

Critical definitions

- An alternative is <u>not prudent</u> if:
 - It compromises the project to a degree that it is unreasonable to proceed in light of the project's stated purpose and need (i.e., the alternative doesn't address the purpose and need of the project);
 - It results in unacceptable safety or operational problems;
 - After reasonable mitigation, it still causes severe social, economic, or environmental impacts; severe disruption to established communities; severe or disproportionate impacts to minority or low-income populations; or severe impacts to environmental resources protected under other Federal statutes;
 - It results in additional construction, maintenance, or operational costs of extraordinary magnitude;
 - It causes other unique problems or unusual factors; or
 - It involves multiple factors as outlined above that, while individually minor, cumulatively cause unique problems or impacts of extraordinary magnitude.

"Built-up" costs for tunnel options

MPRB OPTION 1 - CUT AND COVER SHALLOW TUNNEL								
	(\$M BASE YR)			(\$M YOE)				
Tunnel (South)	\$	(6.1)	\$	(12.4)				
Tunnel (Under Channel)	\$	41.5	\$	84.6				
Other (LRT Channel Bridge Deduct, Add'l LRT DF Track)	\$	(0.4)	\$	(0.8)				
ADD'L CAPITAL COST (Δ FROM SPO CURRENT DESIGN)	\$	35.0	\$	71.4				

ADD'L CAPITAL COST (A FROM SPO CURRENT DESIGN):

\$60 M - \$75 M

MPRB OPTION 2 - JACKED BOX TUNNEL								
	(\$M BASE YR)			(\$M YOE)				
Tunnel (South)	\$	(6.1)	\$	(12.4)				
Tunnel (Under Channel)	\$	51.1	\$	104.3				
Other (LRT Channel Bridge Deduct, Add'l LRT DF Track)	\$	(0.4)	\$	(0.8)				
ADD'L CAPITAL COST (Δ FROM SPO CURRENT DESIGN)	\$	44.6	\$	91.1				

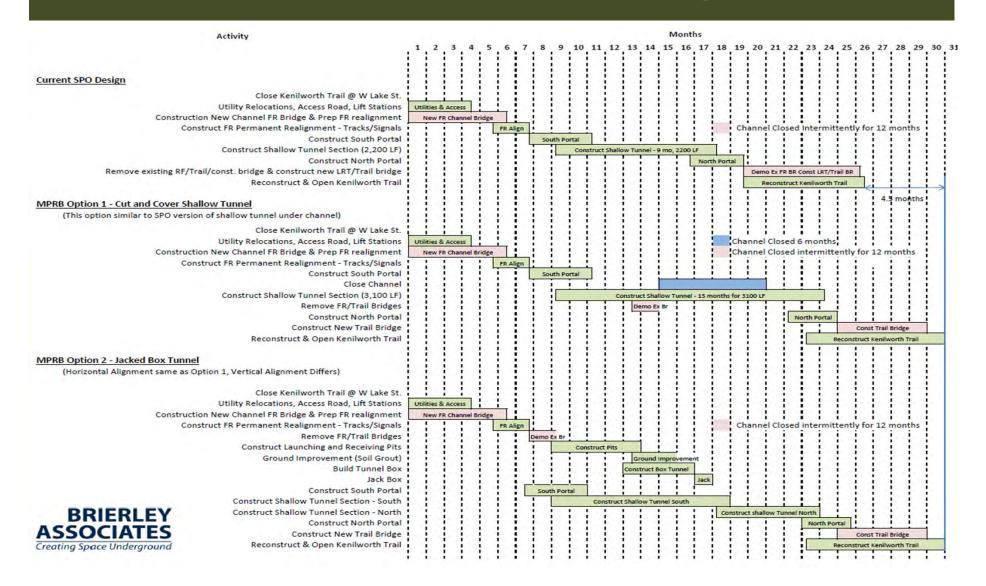
ADD'L CAPITAL COST (A FROM SPO CURRENT DESIGN):

\$80 M - \$95 M

"Built-up" costs for tunnel options

- Cost parameters
 - "Built-up" costs include FTA contingencies and escalation for year of expenditure
 - Costs reflect the cost delta beyond the bridge option
- Cost estimates as additional capital cost
 - Cut and cover tunnel
 - \$60M to \$75M
 - Jacked box tunnel
 - **\$80M to \$95M**
 - The difference in costs between the tunnel options is \$9.6M in base year dollars.
- Estimates do not reflect the costs resulting from additional time that may be required for reviews and approvals under Municipal Consent

Comparison of schedules for alternative crossings



Comparison of schedules for alternative crossings

- Bridge option
 - 25.5 months to construct
 - 12 months of intermittent channel closure
 - 0 months of full channel closure
- Cut and cover tunnel option
 - 30 months to construct
 - 12 months of intermittent channel closure
 - 6 months of full channel closure
- Jacked box tunnel option
 - 30 months to construct
 - 12 months of intermittent channel closure
 - 0 months of full channel closure

Comparison of schedules for alternative crossings

- While there may be some disagreement over the length of the construction period, MPRB and SPO agree on the general schedule
- If there is a need for "de-overlapping" tunnel activities indicated in the schedule as concurrent, the tunnel option may "bump" against critical path construction items

Schedule adjustment for additional review and approval

Current SPO Design

Publish SDEIS Notice of Availability FEIS/ROD Development & Approval FEIS/Record of Decision

MPRB Option #2: Jacked Box Tunnel

Decision on Jacked Box

Design/SDEIS Development & Approval/Municipal Consent Approval

Publish SDEIS Notice of Availability

FEIS/ROD Development & Approval

FEIS/Record of Decision

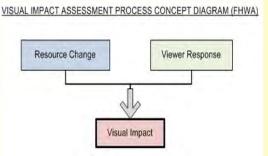


Prudence assessment

- Focus areas
 - Visual quality
 - Noise and vibration
 - Cultural resources (archeology and historical)
 - Water resources (surface water, species movement, ground water)
- FHWA 4(f) impact
- Status of assessment
 - Methodologies indicated
 - Summary of findings presented however final report may include additional background or provide information that reinforces findings
 - Identification of least impactful alternative for each focus area
 - Mitigation measures have not been framed

Visual quality

Methodology based on Federal Highway Administration
 Visual Impact Assessment Guidelines



VISUAL ASSESSMENT UNIT	KEY VIEW (KV)	Bridge Option			Tunnel Options 1 & 2				
		Resource Change	Viewer Response	Visual Impact	Resource Change	Viewer Response	Visual Impact		
1 77 11 1	1	MH	Н	Н	ML	Н	MH		
1-Kenilworth Channel	2	M	M	M	ML	M	M		
	3	Н	Н	Н	ML	Н	MH		
2-Kenilworth	4	M	MH	MH	ML	MH	M		
Trail Corridor	5	МН	M	МН	Н	M	MH		

Visual impact assessment process

- 1) Define the project location and setting.
- 2) Identify visual assessment units and key views.
- 3) Analyze existing visual resources, resource change and viewer response.
- 4) Depict *(or describe)* the visual appearance of project alternatives.
- 5) Assess the visual impacts of project alternatives.
- 6) Propose mitigation measures to offset visual impacts.

Visual assessment units and key views



Existing Conditions

Bridge Option

Tunnel Options 1 & 2

Visualizations for Key View 1 (view from Kenilworth Channel)







Existing Conditions

Bridge Option

Tunnel Options 1 & 2

Trail-only bridge at Key View 1 (view from Kenilworth Channel)





Modified SPO bridge Concrete arched in-channel piers

Pedestrian and bicycle bridge Vaulted steel structure, no inchannel piers

Visualizations for Key View 2 (view from Burnham Road Bridge)



Existing Conditions

Bridge Option

Tunnel Options 1 & 2

Visualizations for Key View 3 (view from Kenilworth Trail Bridge)



Existing Conditions

Bridge Option

Tunnel Options 1 & 2

Visual Impact Summary

VISUAL ASSESSMENT UNIT	KEY VIEW (KV)	Bridge Option			Tunnel Options 1 & 2			
		Resource Change	Viewer Response	Visual Impact	Resource Change	Viewer Response	Visual Impact	
1-Kenilworth Channel	1	MH	Н	Н	ML	Н	МН	
	2	M	M	M	ML	M	M	
	3	Н	Н	Н	ML	Н	МН	
2-Kenilworth Trail	4	M	МН	МН	ML	МН	M	
Corridor	5	МН	M	МН	Н	M	МН	

Compare impact ratings

Tunnel options result in *lesser cumulative visual impacts* to Kenilworth Channel water trail and Kenilworth trail users than the bridge option

Noise and Vibration

- Methodology based on Federal Transportation
 Administration Noise and Vibration Assessment Guidelines
- Land use category is a critical determinant for the channel

Land Use Category	Noise Metric (dBA)	Description of Land Use Category				
1	Outdoor L _{eq} (h)*	Tracts of land where quiet is an essential element in their intended purpose. This category includes lands set aside for serenity and quiet, and such land uses as outdoor amphitheaters and concert pavilions, as well as National Historic Landmarks with significant outdoor use. Also included are recording studios and concert halls.				
2	Outdoor L _{dn}	Residences and buildings where people normally sleep. This category includes homes, hospitals and hotels where a nighttime sensitivity to noise is assumed to be of utmost importance.				
3	Outdoor L _{eq} (h)*	Institutional land uses with primarily daytime and evening use. This category includes schools, libraries, theaters, and churches where it is important to avoid interference with such activities as speech, meditation and concentration on reading material. Places for meditation or study associated with cemeteries, monuments, museums, campgrounds and recreational facilities can also be considered to be in this category. Certain historical sites and parks are also included.				

Land Use Categories

- DEIS (2012) evaluated channel as Category 3, however MPRB comments indicated the resource should be aligned with Category 1 due to the nature of the resource
 - Category 3: "...Certain historical sites and parks are also included...."
 - Category 1 "...includes lands set aside for serenity and quiet...."
- Additional detail specific to parks in FTA guidance:
 - "Parks are a special case. Whether a park is noise-sensitive depends on how it is used. Most parks used primarily for active recreation would not be considered noise-sensitive. However, some parks---even some in dense urban areas---are used for passive recreation like reading, conversation, meditation, etc. These places are valued as havens from the noise and rapid pace of everyday city life and they should be treated as noise-sensitive.... The state or local agency with jurisdiction over the park should be consulted on questions about how the park is used and how much use it gets." [emphasis added]

Basics of noise analysis

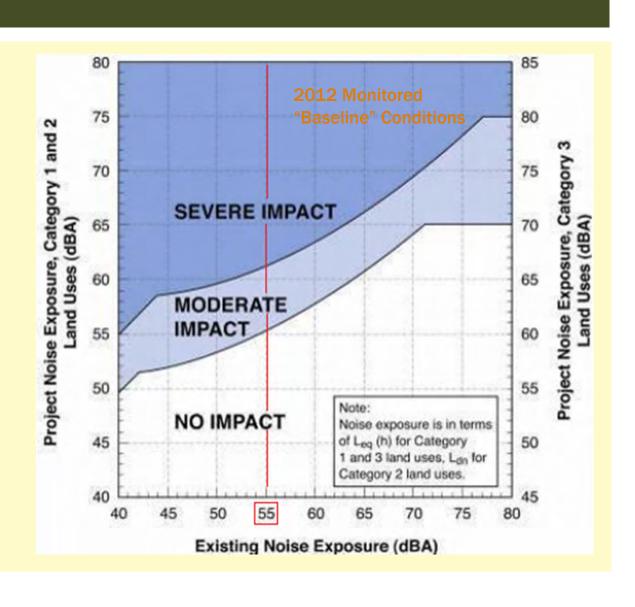
- Baseline noise levels according to SPO 2012 monitoring were 55 dBA
- Process requires a comparison of existing noise conditions to predicted exposure
 - Moderate impacts are clearly noticeable but may not necessarily yield complaints
 - Severe impacts are expected to yield a significant percentage of highly annoyed receivers
 - According to FTA guidance, noise mitigation is generally specified unless not feasible or reasonable

Noise impacts on channel

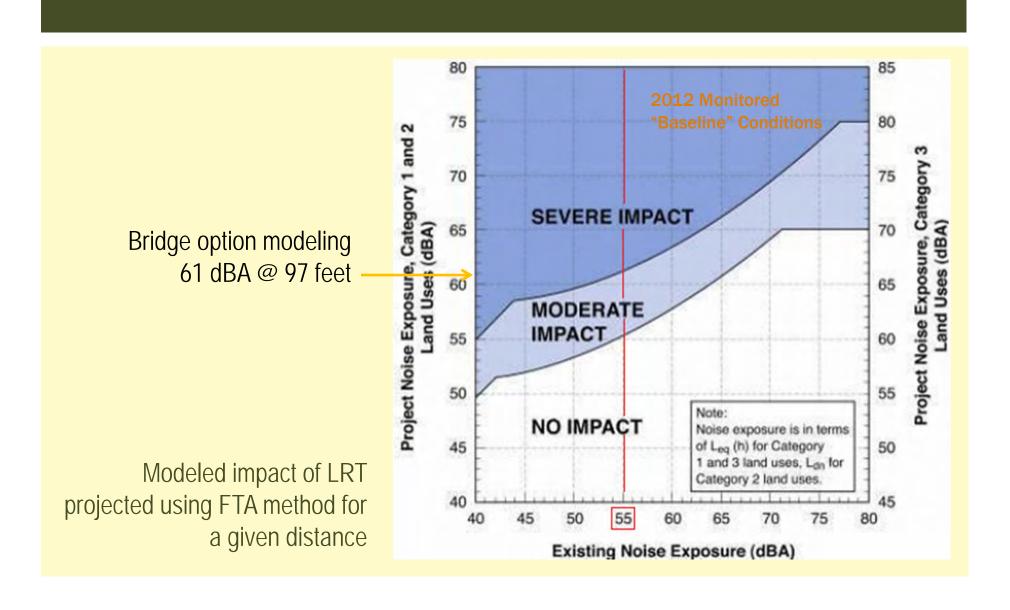


Example channel user @ 97' from LRT

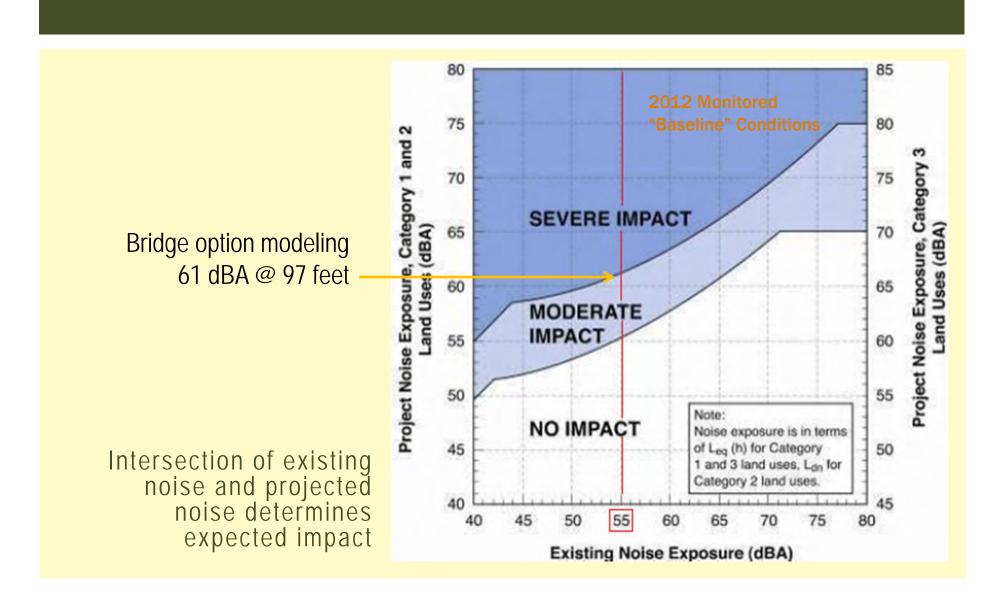
Modeled noise impacts



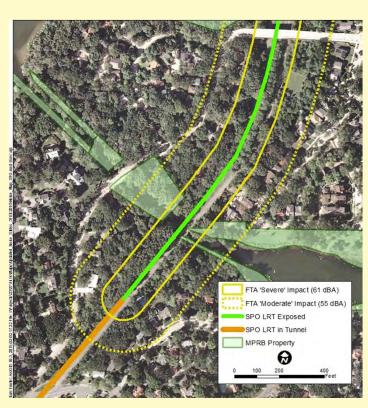
Modeled noise impacts



Modeled noise impacts



Mapped noise impact



Proposed Bridge Option



Tunnel Options 1 & 2

Other noise and vibration considerations

- Vibration impacts are not expected to vary significantly between crossing options
 - From FTA: "Ground-borne vibration is almost never annoying to people who are outdoors"
 - Ground-borne vibration from tunnel options expected to be lower due to additional decay distance provided by depth
- Construction noise will have mixed impacts
 - Additional piling placement required for construction of tunnel options
 - Activity below grade will be screened by terrain
- Operational noise from tunnel options is less impactful
 - Bridge noise impacts to channel are greater than tunnel options

Tunnel options are the least impactful alternative for crossing Kenilworth Channel

Cultural resources

Archeological Assessment are being completed in a manner that meets Section 106 of the National Historic Preservation Act as well as Minnesota Statutes 138.31 -138.42 (the "Field Archaeology Act") and 307.08 (the "Private Cemeteries Act").

Archeology

- Judging by records reviews that have been completed to date, areas that would be impacted by the tunnel options generally lack Native American and historic Euro-American archaeological potential, a possible exception being the two portal segments where some aspects of the records search still are in progress
- Should any archaeological issues be identified along either of these tunnel options, they could likely be mitigated
- The results of the initial SWLRT cultural resources review have already indicated that the corresponding segment of the bridge option lacks archaeological potential

Historical

- Process focused on performing above-ground cultural resources assessment, noting the following resources:
 - Grand Rounds
 - Kenilworth Channel
 - Frieda and Henry J. Neils House
 - Potential effects on Lake of Isles Residential Historic District
 - Potential effects on Kenwood Parkway Residential Historic District
- If identified, historical issues could likely be mitigated for each of the channel crossing options



Surface Water

- Total Suspended Solids (TSS) and Total Phosphorus (TP) loading calculated for bridge area would be reduced depending on treatment method (filtration vs. infiltration)
- Imperviousness includes ballast and hard surfaces
- All options will likely meet City of Minneapolis and Minnehaha Creek Watershed District runoff and water quality requirements

Surface Water

Comparison Feature	Bridge	Cut/Cover Tunnel	Jacked Box Tunnel	
Impervious Area (acre) Sta 2793+00 to 2819+50	5.07	4.369	4.268	
Impervious Area (acre) Bridges (E3-6)	0.47	0.243	0.243	
Annual TSS Loading from Bridges (lbs)	154	80	80	
Annual TP Loading from Bridges (lbs)	0.85	0.44	0.44	

For surface water considerations, the tunnel options offer the least impactful alternative for Kenilworth Channel

Species movement

- Kenilworth Channel currently facilitates aquatic and terrestrial species movement
- An "openness ratio" is used to determine terrestrial species movement
 - (Height x Width)/Length
 - Impairment level at 0.75
 - Tunnel Option = 10.0, Bridge Option = 3.28, Existing = 4.28
 - While no impairment anticipated, the tunnel option are least impactful when completed
- No permanent impacts for aquatic and terrestrial species passage are anticipated
- Channel closure during construction may impact movement for spawning

Literature cited

- Arizona Game and Fish Department, Habitat Branch. 2006. Guidelines for Bridge Construction or Maintenance to Accommodate Fish & Wildlife Movement and Passage.
 http://www.azgfd.gov/hgis/pdfs/BridgeGuidelines.pdf
- Maine Department of Transportation. 2008. Waterway and Wildlife Crossing Policy and Design Guide, For Aquatic Organism, Wildlife Habitat, and Hydrologic Connectivity, Environmental Office, Augusta, Maine.
- Minnesota Department of Natural Resources. 2009. Lake Survey of Cedar Lake and Lake Calhoun, Hennepin County; accessed via LakeFinder at: http://www.dnr.state.mn.us/lakefind/index.html.
- National Marine Fisheries Service Southwest Region, 2001. "Guideline for Salmonid Passage at Stream Crossings." National Oceanic and Atmospheric Administration.

Species movement

Comparison Feature	Bridge	Cut/Cover Tunnel	Jacked Box Tunnel	
Openness Ratio (lower is worse)	3.28	10.0	10.0	
Channel Closures- intermittent (months)	12	12	12	
Channel Closures- complete (months)	0	6	0	
Total Impacted Months	12	18	12	

Bridge and jacked box tunnel offer the least impactful alternative from the perspective of aquatic species movement in the Kenilworth Channel

Groundwater

- Groundwater analysis methodology includes:
 - Adding local detail to the Metro Model 3 groundwater model
 - Simulating the dewatering effects of a jacked box tunnel
 - Evaluating four "effective permeability" conditions of construction pits

Groundwater modeling

- The induced seepage rates from the nearby lakes are modest, provided they are not permanent (i.e. only for construction)
- The local water balance will be unaffected, provided the pumped water is either (1) allowed to re-infiltrate or (2) returned directly to one of the lakes (or channel)
- The rate of dewatering will depend on how effective pile walls and poured floor are at reducing seepage into the pits

Groundwater modeling



Shallow groundwater flow direction

- Neither the bridge or tunnel options were found to have any discernable effect on shallow or deep groundwater flow directions upon completion of construction
- Shallow groundwater flow extends to depths below construction

- Section 4(f) is part of the Department of Transportation Act intended to prevent conversion of specific types of property to transportation use, including, among others, publicly owned land of a park with national, state or local significance.
 - Significance is determined by the national, state or local officials with jurisdiction over the resource
 - For the Kenilworth Channel, the MPRB has jurisdiction

- In addition, the project proposer intending to use the Section 4(f) resource must demonstrate that there is no feasible and prudent alternative and the action includes all possible planning to minimize the use of the resource.
- For Section 4(f), a "use" is:
 - Temporary: generally viewed as construction phase
 - Direct/Permanent: land from Section 4(f) resource is permanently removed from resource and is incorporated into the transportation use
 - Constructive: due to the proximity of the transportation use, the impact is so significant that it impairs use of the resource

- The Section 4(f) methodology requires documentation of the proposed project, as well as its purpose and need
- Resources are listed and mapped, the jurisdiction over the resource is defined, and the amenities or characteristics of the resources are identified and mapped
- Impacts to the amenities or characteristics are then classified as temporary, direct/permanent, or constructive, and avoidance alternatives are framed
- Coordination with the party having jurisdiction of the Section 4(f) resource is required

- For the Kenilworth Channel, the amenities or characteristics to be considered under Section 4(f) include the channel and adjacent green areas that provide space for:
 - Active uses
 - canoeing/kayaking, fishing, ice skating and skiing in the channel
 - biking, walking, running, in line skating near the channel
 - Aesthetic and visual experiences
 - Passive experiences
 - Quietude

- In general, the types of impacts considered in the assessment include:
 - Temporary: closure or impeded access and noise or visual impacts occurring during construction
 - Direct/Permanent: right of way/property loss, obstruction in channel; or
 - Constructive: noise and visual impacts

- Because each crossing alternative varies in its temporary, direct/permanent, and constructive impacts, each amenity or characteristic was assessed separately.
- A technical review of each aspect of each alternative was performed, and then the alternative with the least impact upon the resource was defined.
- No overall evaluation was performed
 - The authority having jurisdiction over the resource should determine the nature of impacts
 - Because some amenities or characteristics may, in the opinion of that jurisdiction, be weighted more heavily for the resource being assessed

Section 4(f) methodology

- Document the proposed project and its purpose and need
- Compile Section 4(f) resource information:
- Identify the types of impacts that may occur to each amenity or characteristic and categorize as temporary, direct or constructive.
- Identify avoidance alternatives (point at which feasible and prudence comes into play)
- Identify minimization and mitigation measures
- Coordinate with the party having jurisdiction over the Section 4(f) resource

Distinguishable 4(f) impacts (impacts sufficient to distinguish between alternatives)

Uses/Alternatives	Bridge		Cut Cover Tunnel		Jacked Box Tunnel	
Canoeing/Kayaking in channel	Increased noise and vibration immediately overhead; shadow/shelter from bridge will reduce natural light in channel; immensity of bridges overhead will result in visual impact	<u>Severe</u> noise impact	Increased noise directed toward channel; portal & crash or retaining walls not likely to be visible from channel		Portal & crash or retaining walls not likely to be visible from channel	Trail bridge may be less visually dominant
Fishing	Increased noise and vibration immediately overhead; immensity of bridges overhead will result in visual impact		Increased noise directed toward channel; portal & crash or retaining walls not likely to be visible from channel	ction ominant	Portal & crash or retaining walls not likely to be visible from channel	
Ice skating/skling in the channel	Increased noise and vibration immediately overhead; shadow/shelter from bridge will reduce natural light in channel & snow accumulation may be hindered; immensity of bridges overhead will result in visual impact		toward channel; portal & crash or retaining walls not likely to be visible from channel	6 months of closure for constructionTrail bridge may be less visually dominant	Portal & crash or retaining walls not likely to be visible from channel	
Biking, walking, running, in line skating near the channel	Increased noise and vibration immediately adjacent to user; continued inability to see channel; view of portal & crash or retaining walls, and introduction of a large, yellow, fast moving vehicle		User will now have a direct view of the portal and associated walls; user may view crash or retaining walls		User may view crash or retaining walls	
Passive use within grass areas along bank of channel (Incl. quietude and aesthetic/visual experience)	Increased noise and vibration; possibility to reduce bank area for passive use, and introduction of a large, yellow, fast moving vehicle		Increased noise directed toward channel bank; portal & crash or retaining walls may be visible from channel bank; user may view crash or retaining walls		User may view crash or retaining walls	

Indistinguishable 4(f) impacts (impacts are indistinguishable between alternatives)

- Temporary construction disturbance of soils and vegetation
- Construction noise
- Intermittent closures for construction
- Visual impacts from construction
- Construction Vibration
- At least a moderate increase in noise

Summary

Feasibility

 All options (bridge and tunnels) are feasible from the perspective of sound engineering judgment

Prudence

- Visual quality: tunnel options pose the least impactful alternative
- Noise and vibration: tunnel options pose the least impactful alternative
- Cultural resources (archeology and historical): While more investigation is needed, any option with archeological or historical issues is likely to have the potential for mitigation
- Water resources (surface water, species movement, ground water):
 - All options will meet requirements for surface water management
 - While no options presents significant impacts for species movement, the tunnel options pose the least impactful alternative
 - There were no discernable differences in groundwater impacts among the options
- FHWA 4(f) impacts: The tunnel options pose the least impactful alternative

Definition of prudence

- An alternative is <u>not prudent</u> if:
 - It compromises the project to a degree that it is unreasonable to proceed in light of the project's stated purpose and need (i.e., the alternative doesn't address the purpose and need of the project);
 - It results in unacceptable safety or operational problems;
 - After reasonable mitigation, it still causes severe social, economic, or environmental impacts; severe disruption to established communities; severe or disproportionate impacts to minority or low-income populations; or severe impacts to environmental resources protected under other Federal statutes;
 - It results in additional construction, maintenance, or operational costs of extraordinary magnitude;
 - It causes other unique problems or unusual factors; or
 - It involves multiple factors as outlined above that, while individually minor, cumulatively cause unique problems or impacts of extraordinary magnitude.

Kenilworth Crossing Alternatives

Questions



Minneapolis Park and Recreation Board

Regular Meeting

2117 West River Road N
Minneapolis, MN 55411
www.minneapolisparks.org

March 4, 2015 ~ Minutes ~ Wednesday 5:00 PM

I. CALL TO ORDER

The time being 5:01 PM, President, Commissioner District 1 Liz Wielinski called the meeting to order.

President, Commissioner District 1 Liz Wielinski: Present, Vice President, Commissioner District 3 Scott Vreeland: Present, Commissioner District 6 Brad Bourn: Present, Commissioner At Large John Erwin: Present, Commissioner At Large Meg Forney: Present, Commissioner District 5 Steffanie Musich: Present, Commissioner District 2 Jon Olson: Present, Commissioner District 4 Anita Tabb: Present, Commissioner At Large Annie Young: Present.

II. APPROVAL OF AGENDA

Approved as amended: Remove Resolution 2015-137 from Consent Business to allow for discussion.

RESULT: ADOPTED [UNANIMOUS]

MOVER: Scott Vreeland, Vice President, Commissioner District 3

SECONDER: John Erwin, Commissioner At Large

AYES: Wielinski, Vreeland, Bourn, Erwin, Forney, Musich, Tabb, Young

ABSENT: Jon Olson

III. APPROVAL OF MINUTES

Minneapolis Park and Recreation Board - Regular Meeting - Feb 18, 2015 5:00

PM

RESULT: ACCEPTED [UNANIMOUS]

MOVER: Scott Vreeland, Vice President, Commissioner District 3

SECONDER: John Erwin, Commissioner At Large

AYES: Wielinski, Vreeland, Bourn, Erwin, Forney, Musich, Tabb, Young

ABSENT: Jon Olson

IV. REPORTS OF OFFICERS

Jayne Miller, Superintendent

Superintendent Miller reported that the Forestry Department will be receiving two

Minnesota Community Forestry Awards on March 17th during a presentation at the Shade Tree Short Course for Outstanding Project Award and Practitioners Award of Excellence to Craig Pinkalla, Arborist in the Forestry Department; Youth Basketball Tournament will run March 2-10; Citywide Youth Wrestling Meet will be held on Saturday, March 14; MPRB Cinderella Ball was held on Sat, February 28 at Columbia Manor with 110 children and 150 adults in attendance, Thanks to Board President Wielinski for supervising the event again this year as our resident Fairy Godmother; St. Patty's Senior Luncheon at Creekview Park; Wearing of the Green Party for adults with disabilities at Windom South Park; Summer Rec Plus citywide registration is March 17th; Rec Plus is excited to offer Explorakits at the parks and upcoming Public Meetings.

V. REPORTS OF APPOINTEES TO OUTSIDE BOARDS, COMMISSIONS OR COMMITTEES

VI. CONSENT BUSINESS

(All items on the Consent Agenda are considered to be routine and have been made available to Commissioners prior to the meeting; the items will be enacted by one motion. There will be no separate discussion of these items unless a Commissioner so requests, in which event the item will be removed from this Agenda and considered under separate motion.)

6.1 That the Board adopt Resolution 2015-137 captioned as follows:

Resolution 2015-137

Resolution Authorizing Approval of Contracts for the Purchase of Trees as Requested Per O.P. #8060 at an Estimated Total Expenditure of \$900,000

VII. CONSENT BUSINESS (continued)

2 That the Board adopt Resolution 2015-138 captioned as follows:

Resolution 2015-138

Resolution Approving the Negotiated Full, Final and Complete Settlement with Future Medical Expenses Closed and an Employment Release as Discussed in a Closed Session on March 4, 2015 for Work Injuries Sustained While Working for the Minneapolis Park and Recreation Board

RESULT: ADOPTED [7 TO 0]

MOVER: Scott Vreeland, Vice President, Commissioner District 3

SECONDER: Anita Tabb, Commissioner District 4

AYES: Wielinski, Vreeland, Erwin, Forney, Musich, Olson, Tabb

ABSTAIN: Brad Bourn, Annie Young

VII. REPORTS OF STANDING COMMITTEES

A. Planning Committee

7.A.1 That the Board adopt Resolution 2015-121 captioned as follows:

Resolution 2015-121

Resolution to Approve the Master Plan for Nokomis-Hiawatha Regional Park

RESULT: ADOPTED [UNANIMOUS]

MOVER: Annie Young, Commissioner At Large SECONDER: Steffanie Musich, Commissioner District 5

AYES: Wielinski, Vreeland, Bourn, Erwin, Forney, Musich, Olson, Tabb, Young

7.A.2 That the Board adopt Resolution 2015-133 captioned as follows:

Resolution 2015-133

Resolution Approving the Master Plan for Theodore Wirth Regional Park

RESULT: ADOPTED [UNANIMOUS]

MOVER: Annie Young, Commissioner At Large SECONDER: John Erwin, Commissioner At Large

AYES: Wielinski, Vreeland, Bourn, Erwin, Forney, Musich, Olson, Tabb, Young

B. Administration and Finance Committee

7.B.1 That the Board adopt Resolution 2015-135 captioned as follows:

Resolution 2015-135

Resolution Amending Professional Services Agreement #C-37983 with Miller Dunwiddie Architecture Related to the Existing HVAC System Evaluation at Minnehaha Park Refectory in the Amount of \$1,000 for a New Contract Total of \$96,500

RESULT: ADOPTED [UNANIMOUS]

MOVER: Anita Tabb, Commissioner District 4

SECONDER: Scott Vreeland, Vice President, Commissioner District 3

AYES: Wielinski, Vreeland, Bourn, Erwin, Forney, Musich, Olson, Tabb, Young

VIII. PETITIONS AND COMMUNICATIONS

8.1 MPRB Construction Permits - 2015 Permit Log 1/17/15 Thru 2/17/2015

8.2 Planning Project List - March 2015

IX. 5:30 p.m. OPEN TIME

Bob Again Carney Jr., 42xx Colfax Ave S - stated that he was concerned that after 3 business days after announcing an agreement with the Met Council the Board is voting on it, adding that he feels that this needs more public input.

Art Higinbotham 34xx St. Louis Ave, concerned about safety issues in the corridor both in construction and operational with collocated freight rail line and light rail line, Requested Commissioners to reconsider the approval of the MOU.

Patty Schmitz, 28xx Dean Parkway, stated that she was opposed to SWLRT in the Kenilworth Corridor, and requested the preservation of the Park lands.

Dave Vanhattum 35xx Pleasant Ave S, Transit for Livable Communities, spoke in strong support for Resolution 2015-139 and requested approval of the resolution.

Kathy Low 21xx W. Franklin Ave, requested the Board not to vote for Resolution 2015-139 because they do not have the full Draft Environmental Impact statement.

Jeanette Colby, 22xx Sherudan Ave S, urged the board to table a vote on Resolution 2015-139, stating that she doesn't feel it is ready, then read a note from Louise Erdrich, 21xx Newton Ave S thanked the Board for their service to the residents of Minneapolis, independent Park Board, requesting please vote no tonight.

Shelley Fitzmaurice, 26xx Burnham Road, stated that our responsibility is to protect our lakes, expressed concerns of derailment and approving a Resolution with out all studies being complete.

George Puzak, 17xx Girard Ave S, urged the Commissioners to vote no on the MOU with the Met Council, stating that it is premature and that the Board lacks critical information that Met Council is required to provide, requesting please uphold your mission to preserve, protect and enhance our parks and lakes.

Carol Kummer, 48xx 30th Ave S, stated that as the Board would be prioritizing the process/implementation of the Lake Hiawatha/Lake Nokomis Master Plan, urging the Board to put off closing Lake Hiawatha Beach until the very end.

Russ Adams, 33xx 14th Ave S, Alliance for Metropolitan Stability, encouraged the Board to pass Resolution 2015-139 and encouraged the removal of the freight rail lines from this corridor.

Arlene Fried, 11xx Xerxes Ave S, suggested that a solution for additional parking at Graco was to use one of it's surface lots to build a parking ramp.

Susu Jeffrey, 10xx Antoinette, urged the Commissioners to vote no against any plan that would take the SWLRT through the parks.

Gordon Everest, 46xx 28th Ave S, came to speak against closing the beach at Lake Hiawatha stating he, his family and friends would be very disappointed if the Lake Hiawatha was closed

Charlie Casserly, 47xx 27th Ave S, urged the Board to stop the permanent removal of the Lake Hiawatha Beach in the master plan, and that it was not representative of the public comments.

Edna Brazaitis, 4x Grove Street, stated Graco agreed to supported the Mississippi River trail and provided an easement to the MPRB on their property between the river and their headquarters when the money became available and requested that Graco to uphold this agreement.

X. UNFINISHED BUSINESS

The time being 6:26 p.m., President Wielinski recessed the Regular Meeting for the purpose of convening the Planning Committee

The time being 7:55 p.m., President Wielinski reconvened the Regular Meeting

10.1 That the Board adopt Resolution 2015-139 captioned as follows:

Resolution 2015-139

Resolution Determining that the Minneapolis Park and Recreation Board (MPRB) Will Not Pursue Tunnel Crossing Options for the Southwest Light Rail Transit (SWLRT) Project; Approving a Legally Binding Memorandum of Understanding with the Metropolitan Council that 1) Establishes a Process that Recognizes Parks and Park Resources in the Transit Project Development Process, 2) Outlines a Process for Collaboration Between the Southwest Project Office and MPRB on Design of Bridge Crossings at the Kenilworth Channel, and 3) Results in an

Agreement Between the Metropolitan Council and the MPRB to Facilitate
Approval and Construction of the SWLRT Project; and Authorizing the
Superintendent to Initiate Agreements with Metropolitan Council to Reimburse
the MPRB for Costs Related to Its Work on the SWLRT Project and the Blue Line
Light Rail Transit Extension (Bottineau) Project;

Approved as Amended (Olson & Erwin amendment) on a roll call vote

RESULT: ADOPTED [6 TO 3]

MOVER: Scott Vreeland, Vice President, Commissioner District 3

SECONDER: Brad Bourn, Commissioner District 6

AYES: Wielinski, Vreeland, Bourn, Erwin, Musich, Olson

NAYS: Meg Forney, Anita Tabb, Annie Young

That the Board adopt Resolution 2015-139 captioned as follows:

Resolution 2015-139

Resolution Determining that the Minneapolis Park and Recreation Board (MPRB) Will Not Pursue Tunnel Crossing Options for the Southwest Light Rail Transit (SWLRT) Project; Approving a Legally Binding Memorandum of Understanding with the Metropolitan Council that 1) Establishes a Process that Recognizes Parks and Park Resources in the Transit Project Development Process, 2) Outlines a Process for Collaboration Between the Southwest Project Office and MPRB on Design of Bridge Crossings at the Kenilworth Channel, and 3) Results in an Agreement Between the Metropolitan Council and the MPRB to Facilitate Approval and Construction of the SWLRT Project; and Authorizing the Superintendent to Initiate Agreements with Metropolitan Council to Reimburse the MPRB for Costs Related to Its Work on the SWLRT Project and the Blue Line Light Rail Transit Extension (Bottineau) Project;

Amend Resolution 2015-139 as follows,

The caption of Resolution:

Resolution Determining that the Minneapolis Park and Recreation Board (MPRB) Will Not Pursue Tunnel Crossing Options for the Southwest Light Rail Transit (SWLRT) Project; Approving a <u>Legally Binding Memorandum of Understanding</u> with the Metropolitan Council that...

The resolved clause of Resolution:

Resolved, That the Board of Commissioners approve a <u>Legally Binding</u> Memorandum of Understanding between the Metropolitan Council and the MPRB that...

The Memorandum of Understanding, Now therefore, section 3:

3. The MPRB agrees to work with the Metropolitan Council to facilitate the approval and construction of any LRT project.

RESULT: AMENDMENT ADOPTED [7 TO 0]
MOVER: Jon Olson, Commissioner District 2
SECONDER: John Erwin, Commissioner At Large

AYES: Wielinski, Vreeland, Bourn, Erwin, Forney, Musich, Olson

ABSTAIN: Anita Tabb, Annie Young

That the Board adopt Resolution 2015-139 captioned as follows:

Resolution 2015-139

Resolution Determining that the Minneapolis Park and Recreation Board (MPRB) Will Not Pursue Tunnel Crossing Options for the Southwest Light Rail Transit (SWLRT) Project; Approving a Legally Binding Memorandum of Understanding with the Metropolitan Council that 1) Establishes a Process that Recognizes Parks and Park Resources in the Transit Project Development Process, 2) Outlines a Process for Collaboration Between the Southwest Project Office and MPRB on Design of Bridge Crossings at the Kenilworth Channel, and 3) Results in an Agreement Between the Metropolitan Council and the MPRB to Facilitate Approval and Construction of the SWLRT Project; and Authorizing the Superintendent to Initiate Agreements with Metropolitan Council to Reimburse the MPRB for Costs Related to Its Work on the SWLRT Project and the Blue Line Light Rail Transit Extension (Bottineau) Project;

That the Board Table resolution 2015-139

Forney Tabb amendment fail on a roll call vote

RESULT: AMENDMENT DEFEATED [3 TO 6]
MOVER: Meg Forney, Commissioner At Large
SECONDER: Anita Tabb, Commissioner District 4
AYES: Meg Forney, Anita Tabb, Annie Young

NAYS: Wielinski, Vreeland, Bourn, Erwin, Musich, Olson

XI. NEW BUSINESS

XII. ADJOURNMENT

RESULT: ADOPTED [UNANIMOUS]

MOVER: Scott Vreeland, Vice President, Commissioner District 3

SECONDER: John Erwin, Commissioner At Large

AYES: Wielinski, Vreeland, Bourn, Erwin, Forney, Musich, Olson, Tabb, Young

Regular Meeting adjourned at 9:04 PM



Minneapolis Park and Recreation Board

Regular Meeting

2117 West River Road N Minneapolis, MN 55411 www.minneapolisparks.org

March 4, 2015 ~ Agenda ~ Wednesday 5:00 PM

Meeting Times are subject to change based on discussion from previous meetings.

I. CALL TO ORDER

Liz Wielinski President, Commissioner District 1
Scott Vreeland Vice President, Commissioner District 3

Brad Bourn Commissioner District 6
John Erwin Commissioner At Large
Meg Forney Commissioner At Large
Steffanie Musich Commissioner District 5
Jon Olson Commissioner District 2
Anita Tabb Commissioner District 4
Annie Young Commissioner At Large

II. APPROVAL OF AGENDA

III. APPROVAL OF MINUTES

Wednesday, February 18, 2015

IV. REPORTS OF OFFICERS

Jayne Miller, Superintendent

V. REPORTS OF APPOINTEES TO OUTSIDE BOARDS, COMMISSIONS OR COMMITTEES

VI. 5:30 p.m. OPEN TIME

Persons wishing to speak can call in before 3:00 p.m. on the day of the meeting by calling 612-230-6400 to be placed on the agenda or can sign up at the Board meeting prior to the start of "Open Time". As stated in Board Rules "Open Time" shall not exceed a total of 15 minutes with up to three minutes allowed for citizen testimony, with the time limit to be allotted by the President.

VII. CONSENT BUSINESS

(All items on the Consent Agenda are considered to be routine and have been made available to Commissioners prior to the meeting; the items will be enacted by one motion. There will be no separate discussion of these items unless a Commissioner so requests, in which event the item will be removed from this Agenda and considered under separate motion.)

7.1 That the Board adopt Resolution 2015-137 captioned as follows:

Resolution 2015-137

Resolution Authorizing Approval of Contracts for the Purchase of Trees as Requested Per O.P. #8060 at an Estimated Total Expenditure of \$900,000

7.2 That the Board adopt Resolution 2015-138 captioned as follows:

Resolution 2015-138

Resolution Approving the Negotiated Full, Final and Complete Settlement with Future Medical Expenses Closed and an Employment Release as Discussed in a Closed Session on March 4, 2015 for Work Injuries Sustained While Working for the Minneapolis Park and Recreation Board

VIII. REPORTS OF STANDING COMMITTEES

A. Planning Committee

8.A.1 That the Board adopt Resolution 2015-121 captioned as follows:

Resolution 2015-121

Resolution to Approve the Master Plan for Nokomis-Hiawatha Regional Park

8.A.2 That the Board adopt Resolution 2015-133 captioned as follows:

Resolution 2015-133

Resolution Approving the Master Plan for Theodore Wirth Regional Park

B. Administration and Finance Committee

8.B.1 That the Board adopt Resolution 2015-135 captioned as follows:

Resolution 2015-135

Resolution Amending Professional Services Agreement #C-37983 with Miller Dunwiddie Architecture Related to the Existing HVAC System Evaluation at Minnehaha Park Refectory in the Amount of \$1,000 for a New Contract Total of \$96,500

IX. UNFINISHED BUSINESS

9.1 That the Board adopt Resolution 2015-139 captioned as follows:

Resolution 2015-139

Resolution Determining that the Minneapolis Park and Recreation Board (MPRB) Will Not Pursue Tunnel Crossing Options for the Southwest Light Rail Transit (SWLRT) Project; Approving a Memorandum of Understanding with the Metropolitan Council that 1) Establishes a Process that Recognizes Parks and Park Resources in the Transit Project Development Process, 2) Outlines a Process for Collaboration Between the Southwest Project Office and MPRB on Design of Bridge Crossings at the Kenilworth Channel, and 3) Results in an Agreement Between the Metropolitan Council and the MPRB to Facilitate Approval and Construction of the SWLRT Project; and Authorizing the Superintendent to Initiate Agreements with Metropolitan Council to Reimburse the MPRB for Costs Related to Its Work on the SWLRT Project and the Blue Line Light Rail Transit Extension (Bottineau) Project;

X. NEW BUSINESS

XI. PETITIONS AND COMMUNICATIONS

- 11.1 MPRB Construction Permits 2015 Permit Log 1/17/15 Thru 2/17/2015
- 11.2 Planning Project List March 2015

XII. ADJOURNMENT

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding is between the Minneapolis Park & Recreation Board (MPRB) and the Metropolitan Council as of March 12, 2015.

WHEREAS,

- 1. The Metropolitan Council has authority under Minnesota Statutes sections 473.399 to 473.3999 to plan, design, acquire, construct and equip light rail transit (LRT) facilities in the seven-county metropolitan area, as defined in Minnesota Statutes section 473.121, subdivision 2. Further, the Metropolitan Council has authority under Minnesota Statutes section 473.405, subdivision 4, and other applicable statutes, to engineer, construct, equip, and operate transit systems projects, including LRT, in the metropolitan area.
- 2. The Metropolitan Council is developing the Southwest Light Rail Transit (SWLRT) Project, a proposed approximately 15.8 mile extension of the METRO Green Line, which would operate from downtown Minneapolis to Eden Prairie.
- 3. The Metropolitan Council is working cooperatively with the Hennepin Country Regional Rail Authority (HCRRA) on the Bottineau Light Rail Transit (BLRT) Project, a proposed approximately 13 mile extension of the METRO Blue Line, which would operate from downtown Minneapolis to Brooklyn Park.
- 4. The MPRB is responsible for maintaining and developing the Minneapolis Park system to meet the needs of Minneapolis citizens and is the official with jurisdiction relating to Section 4(f) for park and recreational areas within its jurisdiction.
- 5. LRT projects involve numerous statutory and regulatory processes and coordination or engagement between multiple government units or other entities. The Parties discussed these processes with respect to property owners of park and recreation areas. A summary of those discussions is attached as Attachment A. Attachment B is a visual representation of the coordination of these activities.
- 6. The SWLRT Project's current scope and budget include the use of bridges to cross the Kenilworth Channel for freight rail, LRT and the Kenilworth Trail. The Parties discussed process and design considerations in the event the final design utilizes a bridge crossing. These process and design considerations are set forth in Attachment C.

NOW THEREFORE, the Parties set forth their understandings as follows:

- 1. The Metropolitan Council agrees to the terms and processes outlined in Attachments A and B with respect to park and recreation areas under the jurisdiction of the MPRB.
- 2. The Metropolitan Council and the MPRB agree to the Kenilworth Channel Crossing Process and Design Considerations for Bridge Concepts as outlined in Attachment C.
- 3. The MPRB agrees to work with the Metropolitan Council to facilitate the approval and construction of any LRT project.
- 4. .Nothing in this MOU shall be construed as limiting or affecting the legal authorities of the Parties, or as requiring the Parties to perform beyond their respective authorities.
- 5. The Parties acknowledge that the planning and construction of any LRT project will require numerous federal, state, and local processes, approvals and funding commitments. The SWLRT Project is currently in the Project Development phase of the federal New Starts program and a substantial amount of design, engineering, environmental review, and funding commitments must occur before construction can begin. Any LRT project cannot proceed without the issuance of the Record of Decision by the FTA and funding of the Project, including the Full Funding Grant Agreement from the FTA.
- 6. Nothing in this MOU shall require the Metropolitan Council or the MPRB to take any action or make any decision that will prejudice or compromise any processes required under state or federal environmental or other laws or regulations. This MOU further does not limit the alternatives or mitigative measures that the Metropolitan Council may undertake in the development and construction of any LRT project.

MINNEAPOLIS PARK & RECREATION BOARD	METROPOLITAN COUNCIL	
By Its: President	By	
By Its: Secretary	Date	
Date		

Approved as to form:	
Attorney	

Attachment A LRT Project Coordination Park and Recreation Areas

Attachment B outlines critical coordination opportunities and process changes that will be implemented by the Metropolitan Council with property owners of park and recreation areas. These processes are designed to support the protection of park and recreation areas by fully integrating consideration of these important resources into project development, engineering and construction processes and activities. This includes exercising full authority under the National Environmental Policy Act of 1969 (NEPA), the Minnesota Environmental Policy Act (MEPA) and Section 4(f) of the Department of Transportation Act of 1966. Specifically, these coordination opportunities ensure the protection of park and recreation areas are addressed early under these processes and continue through the construction of the LRT project. The exhibit identifies five new coordination opportunities and process changes (see below) that will be incorporated into the appropriate Metropolitan Council's LRT Project Office Procedures. The Metropolitan Council agrees to update these administrative procedures effective March 12, 2015.

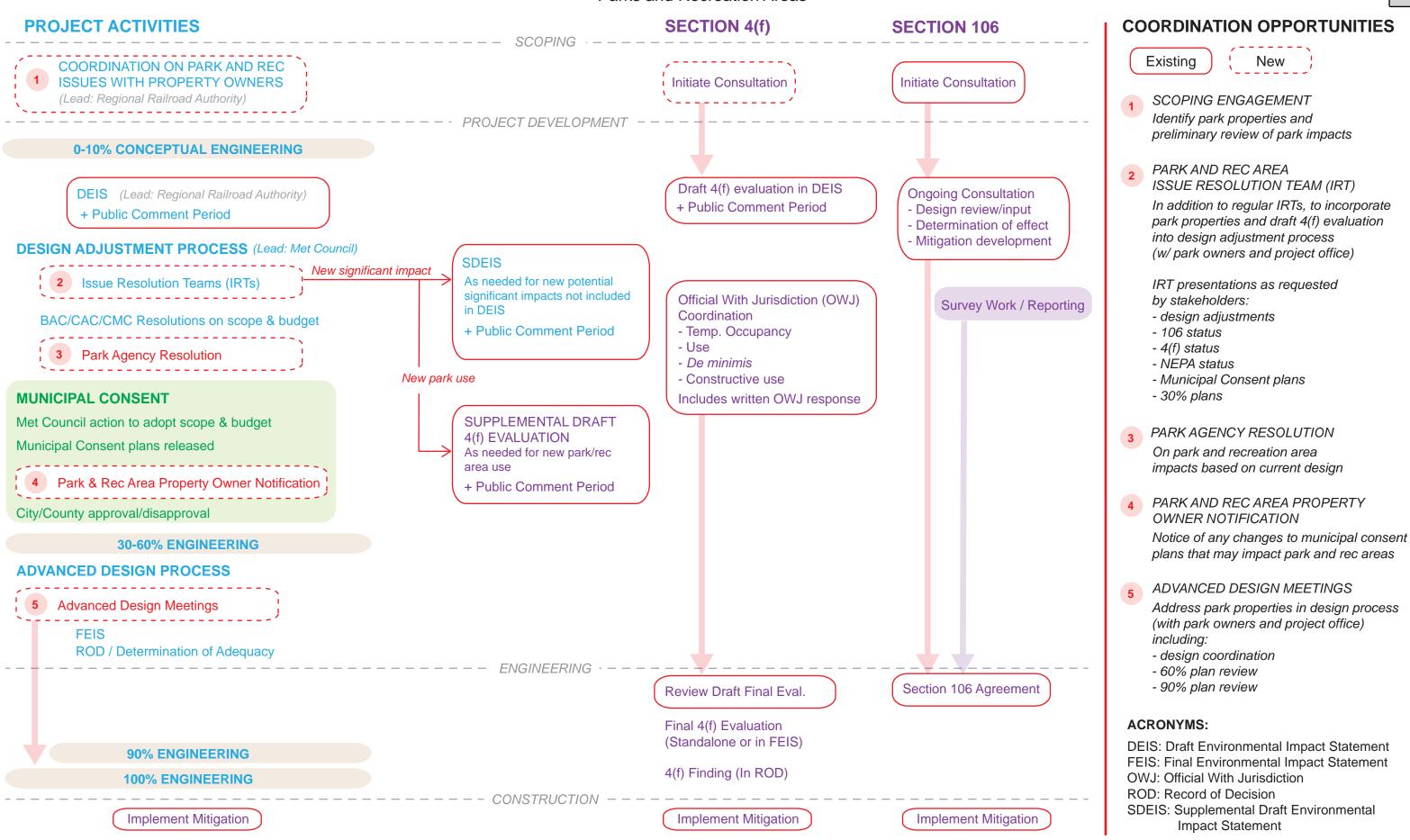
Coordination Opportunities and Process Changes

- 1. Scoping and Planning Engagement: In accordance with NEPA and Section 4(f) requirements, the lead project agency(ies) will work with park and recreation area property owners to identify park properties and conduct a preliminary review of potential impacts to parks and Section 4(f) avoidance and mitigation alternatives during the scoping and planning process. Since this element of the process would likely be led by the responsible regional railroad authority, the Metropolitan Council will coordinate with the regional railroad authority to address issues and concerns for park properties during the scoping process and review the Scoping Report and/or applicable planning documentation on park and recreation areas when it assumes responsibility for the project.
- 2. Park and Recreation Area Issue Resolution Team (IRT): In addition to other identified IRTs, there will be an IRT specifically focused on park and recreation areas within the project study area. The IRT will be comprised of property owners of those park and recreation areas in the project study area. The purpose of the IRT will be to incorporate the protection of park properties and the Draft Section 4(f) Evaluation into the design adjustment process. The IRT process will also include other applicable topics that would involve affected park properties, including but not limited to design adjustments, Section 106 status, Section 4(f) status, NEPA/MEPA status, Municipal Consent Plans, and 30% design plans.
- 3. Park and Recreation Area Property Owner Resolution: Prior to the Metropolitan Council action to adopt the scope and budget initiating the Municipal Consent process, the park and recreation area property owner may take a resolution indicating its position on the project scope and budget.
- 4. Park and Recreation Area Property Owner Notification of Changes: If, during the Municipal Consent process, the Metropolitan Council, city, town, or county propose a substantial change to the preliminary design plans for a park or recreation area, the Metropolitan Council will notify

- the park and recreation area property owner of the proposed change and identify the next steps and timeframe in the Municipal Consent process, thereby allowing the property owner to provide input to the Council, city, town, or county.
- 5. Advanced Design Meetings: Park and recreation area property owners will have the opportunity to participate in the advanced design process including design coordination on project elements that impact park and recreation areas, as well as conducting 60% and 90% design plan reviews.

Attachment B: LRT Project Coordination

Parks and Recreation Areas



Attachment C Kenilworth Channel Crossing Process and Design Considerations for Bridge Concepts

20 February 2015

Overview

To aid in advancing the design of bridge concepts for the crossing of the Kenilworth Channel, this document frames a process of collaboration between the Southwest LRT Project Office (SPO) and the Minneapolis Park and Recreation Board (MPRB) and outlines a set of parameters intended to guide further exploration of bridge concepts beginning with a conceptual perspective and eventually arriving at a mutually supportable design.

In describing both a process to follow as well as design principles, it is understood there is work that *has been accomplished* and additional work that will continue using the design principles outlined in this attachment. The goals of this effort are to:

- encourage collaboration between SPO and MPRB in defining design directions that satisfy concerns raised by MPRB in its review of the SWLRT alignment in the area of the Kenilworth Channel;
- incorporate strategies or features in the design of a bridge that respond to findings of MPRB's study of channel crossing concepts; and
- allow for the eventual implementation of bridge crossings of the channel for freight rail, light rail, and the Kenilworth Trail in ways that maintain the feasibility, budget and schedule of the SWLRT project.

In pursuing a process focused on design, SPO and MPRB recognize the effort to be more aspirational than prescriptive. Steps of the design process may focus on history, user experience, environmental context, or structure relationships in varying ways.

Process

The process pursued in the design of the bridges recognizes concurrent and ongoing required reviews facilitated by SPO and other project design work in the same corridor, some of which may influence bridge designs as a result of proximity to the Kenilworth Channel. Bridge design activities will be coordinated to align with existing schedules established by SPO for Section 4(f) and Section 106, and the Kenilworth Landscape Design Consultant activities. Schedules for those processes will be defined separately from this document.

Bridge concepts and design refinements will be presented by SPO as a part of meetings that address topics related to the Kenilworth corridor or areas near the Kenilworth Channel that are influenced by the alignment of SWLRT. For these efforts, MPRB staff may participate in presentations to support the design.

SPO and MPRB commit the resources of key staff to effect the process of creating a supportable bridge

Design Milestones

Work related to bridge design will begin immediately and be pursued according to the following schedule (note that reviews noted above will be required as a part of the schedule described below; note also that the term "bridge," as used in the following table, may apply to any configuration of single or multiple bridges required for the channel crossing):

Task			
1	Establish design criteria, environmental mitigation strategies, and concept directions (narrative descriptions)	SPO/MPRB	Q1 2015
2	Review and finalize design criteria, environmental mitigation strategies, and narrative concepts; compare to directions from previous bridge design work	SPO/MPRB	
3	Explore initial design directions based on narrative concepts	SPO	
4	Develop a range of bridge design concepts	SPO	
5	Update MPRB Board of Commissioners on bridge design process; gain input on preferred directions	SPO/MPRB	
6	Coordinate with ongoing Section 4(f), Section 106 and Kenilworth Landscape Design Consultant activities	SPO	Ongoing
6	Select a preferred bridge design direction	MPRB	
7	Develop 60 percent bridge design documents	SPO	
8	Conduct 60 percent formal reviews	MPRB	Q3 2015
9	Develop 90 percent bridge design documents	SPO	
10	Conduct 90 percent formal reviews	MPRB	Q1 2016
11	Complete final bridge design	SPO	Q2 2016

The tasks described will be pursued collaboratively to the extent practicable, with production work related to concept documentation, design refinements, and presentation materials being the primary responsibility of SPO with coordination and review by MPRB.

page 3

Design Principles

The design of the bridge crossing may introduce forms other than those defined in previously shared bridge design concepts. The process should result in distinct bridge concepts that can be assessed for their ability to resolve impacts identified by MPRB in its process of studying tunnel alternatives. ¹

The bridge designs may follow the following conceptual design principles:

- a) Bridges are defined primarily by structural design requirements, and considering, at a minimum:
 - a. Separation of freight, LRT, and trail bridges
 - b. Exploration of pier and deck configurations aimed at reducing piers in the channel while maintaining desired vertical clearances in the channel
 - c. Use of other structure types based on structural requirements (loading, deflection)
- b) Bridges are defined primarily by the context of the channel and its users, and considering, at a minimum:
 - a. User-focused experience with few or no penetrations of the channel
 - b. Elimination of roosts on the underside of the bridge or piers
 - c. Minimization of continuous deck expanse in order to bring more light to channel
- c) Bridges are defined primarily by the context of the Grand Rounds, and considering, at a minimum:
 - a. Reference to other bridges in the Chain of Lakes Regional Park, using the form, scale, materials, color, and details to influence the design without mimicry
 - Creation of a contrast with historical channel elements (WPA walls) to clearly separate the newly introduced structures from those elements currently considered contributing to its historic nature
 - c. Recognition that there was no trail bridge at this location, that the railroad bridge that was constructed does not match other nearby railroad bridges, and that new bridges may not need to reference those other structures
- d) Bridges are defined primarily by their relationships to one another, and considering, at a minimum:
 - a. Creation of a series of bridges all based on the same structural system, style, mass, and detail (no distinction by use)
 - Establishment of freight and rail bridges based on the same structural system, style, mass, and detail, with a trail bridge employing a different structural system, style, mass, and detail (distinction by use)
 - c. Creation of a "family" of structures, focused on coherency but allowing each to be different based on structure type and use

Through the Section 106 consultation process, directions for bridge form, configuration, and details have been proposed and may be incorporated into the conceptual design principles described above, including:

a) Related to Bridge Concepts:

¹ The MPRB undertook a study of the channel crossing and determined visual quality and noise as the MPRB's highest priorities for consideration in the design of the bridge.

- a. Design investigation in coordination with Section 106 process and Secretary of Interior Standards
- b. Tested with structural engineering
- b) Aesthetic Considerations
 - a. Space for banks between abutments and water
 - b. Symmetry
 - c. Consistency of elevations: curbs, railings and fencing
- c) Summary of Consulting Party input (Nov. 2014)
 - a. Maximize natural light between bridges
 - b. Importance of bank engagement: vegetation restoration and bank walls; bridge abutments and retaining wall
 - c. Create more space for skiers and kayakers
 - d. Natural materials, dark colors
 - e. Utilitarian, non-ornamental
 - f. Re-interpretation of existing bridge
 - g. Modern construction techniques

Designs shall demonstrate the relationship to the concepts framed (or as refined through the process) through illustrations and supporting narrative descriptions and be augmented by precedent images or other information supportive of the concept.

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March , 2015

Minneapolis Parks and Recreation Board Superintendent Jayne Miller 2117 W River Road Minneapolis, MN 55411

Re: Engineering Consultant's Report on the Kenilworth Channel

Dear Superintendent Miller:

This letter is a follow-up to recent discussions between the Metropolitan Council (Council) and the Minneapolis Park and Recreation Board (MPRB) about the Kenilworth Channel and 4(f) analysis under Section 4(f) of the Department of Transportation Act of 1966. The MPRB is an official with jurisdiction under the federal 4(f) statutes and regulations and hired an engineering consultant to study a tunnel option under the Kenilworth Channel.

The Council will benefit from analysis conducted by the Park Board commissioned engineering study to further evaluate tunnel alternatives under the channel. This information will help inform the 4(f) analysis that will be addressed in the Supplemental Environmental Impact Statement (SDEIS) and the final 4(f) analysis. The Council proposes the following:

- To help cover the costs of the MPRB's consultant study, the Council will reimburse the MPRB: (a) fifty percent (50%) of the MPRB's engineering consultant costs or \$250,000, whichever amount is less; and (b) \$21,500 for MPRB staff work associated with the preparation of that report. The \$21,500 is in addition to the reimbursement for engineering consultant costs.
- 2. The MPRB will provide the Council with a copy of the report and any underlying data that may have been collected for the report if those data will help the Council complete its 4(f) analysis.
- The MPRB will submit an invoice with supporting documentation showing actual MPRB expenditures for the consultant report.
- 4. The Council will reimburse the MPRB within thirty days after receiving the invoice and supporting documentation.
- 5. The Council will reimburse the MPRB for any future MPRB staff work performed on behalf of the SWLRT Project consistent with the Project's standard protocol for reimbursement of Project partners' staff work and pursuant to the terms of a future Master Funding Agreement and Subordinate Funding Agreements between the MPRB and the Council.

If this reimbursement proposal is acceptable to the MPRB, please sign below and return a copy of this letter to me for the Council's contract files.

Sincerely,

Patrick P. Born	
Regional Administrator	



Accepted on behalf of the

Minneapolis Park and Recreation Board